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ABSTRACT

The costing procedures in this manual have been selected to give postsecondary educational institutions a way to determine the full cost of resources used in achieving institutional objectives. The procedures have been tested by a limited number of institutions within a wide range of activities, and are being released in a filed review edition at this time to promote further testing and evaluation. Recognizing that institutions conduct different kinds of cost studies for various purposes, this manual has not identified one particular set of procedures to cover all situations. Those institutions and agencies wishing to adopt a unique set of cost reporting or analysis procedures will need to do so in the context of the specific requirements being addressed. Appendixes include: glossary, program classification structure activity centers, personnel activity survey forms, capital cost study, and support cost allocations illustrated with sample data. (Author/PG)

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COST ANALYSIS MANUAL

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Field Review Edition

Technical Report No. 45

1974

by

James R. Topping

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PREFACE

This publication is one of a series that document the Cost Finding Principles project. Each publication is described briefly below:

Cost Finding Principles and Procedures: Field Review Edition (Ziemer, Young, and Topping, 1971), the initial publication developed under the Cost Finding Principles project. The materials in this report have been refined and are included in the Cost Analysis Manual.

Cost Analysis Manual (Topping, 1974), a detailed procedures manual that guides the user through the cost finding process. The recommended procedures define the methodology for identifying, assigning, and allocating cost information to the programmatic activities of institutions of higher education. The costing procedures recommended in this document are an integral part of the Information Exchange Procedures Manual (Renkiewicz and Topping, 1973).

Cost Finding Principles: Summary of the Analyses of the Pilot Test Data (Topping, Weldon, and Kirschling, 1974), a collection of analyses of the data collected from the six pilot test institutions.

Cost Finding Principles: Software Documentation (Beatty, 1973), a detailed user's guide for those institutions planning to install and use the Cost Finding Principles computer software.

In addition to these four publications, two other NCHEMS publications are recommended to any individual intending to use the Cost Analysis Manual at his institution: Program Classification Structure (Gulko, 1972), and Faculty Activity Analysis Procedures Manual (Manning and Romney, 1973).

FOREWORD

The Cost Analysis Manual has been developed by the Cost Finding Principles Task Force and pilot test institutions with the aid of Jim Topping of the NCHEMS staff. The costing procedures in this manual have been selected to give postsecondary education institutions a way to determine the full cost of resources used in achieving institutional objectives. The procedures have been tested by a limited number of institutions with a wide range of activities, and are being released in a field review edition at this time to promote further testing and evaluation.

Recognizing that institutions conduct different kinds of cost studies for various purposes, this manual has not identified one particular set of procedures to cover all situations. Those institutions and agencies wishing to adopt a unique set of cost reporting or analysis procedures will need to do so in the context of the specific requirements being addressed.

NCHEMS is committed to move ahead rapidly in further testing of these procedures, and intends to incorporate them into the pilot test of the Information Exchange Procedures Manual (Renkiewicz and Topping) during 1974.

While the Center is confident that its products in this area will represent significant steps forward in the improvement of cost finding procedures, it is concerned that care should be taken that such procedures not be prematurely or indiscriminately applied across the full spectrum of postsecondary education.

The thrust of the NCHEMS effort is to provide tools for management use, but not to substitute these tools for managerial judgment.

ACKNOWLEDGMENTS

This document represents the composite efforts of many individuals. The project was guided by a task force of individuals who have years of experience working with cost studies. The costing procedures contained in this document are the result of many discussions held by the following:

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Mr. Henry Kirschenmann, Mr. Donald Greene, Mr. Gary Talesnik, and Mr. Ted Tracy, Project Officers with the Division of Grants Administration Policy, Office of the Secretary, Department of Health, Education, and Welfare, spent many hours with the staff discussing the issues and reviewing earlier drafts of this document.

And, finally, I would like to acknowledge the efforts of many members of the NCHEMS staff who contributed to this project: George Beatty, Douglas Collier, Lorraine Hori, Jerry Johnson, Dennis Jones, Wayne Kirschling, Dave Makowski, Glenn Miyataki, Nancy Renkiewicz, Leonard Romney, Robert Wallhaus, Kent Weldon, Mike Young, and Gordon Ziemer.

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CHAPTER I

INTRODUCTION

SECTION A - PURPOSES OF CONDUCTING A COST STUDY

The Cost Finding Principles (CFP) project was designed originally to develop a uniform set of standards, definitions, and alternative procedures that would use accounting and statistical data to find the full cost of resources used in the process of achieving institutional objectives. This standard set of principles and procedures, given careful consideration and assuming common data elements and standard aggregation methodologies, would serve the following purposes:

1. To Improve Capabilities for Internal Management.

   a. The first and probably greatest use of program-oriented cost data is that of "flagging" possible problem areas for more detailed investigations that may or may not result in a reallocation of resources. After all costs have been associated with the activities of the institution's primary programs (for example, costs per student credit by course level and discipline) one may find that the costs of some activities are out of line with costs of similar programs. If further investigations support this first observation, the decision maker may wish to take corrective action in future budget allocations.

Another way "flags" may be raised while conducting a cost study is by examining carefully the source of costs attributed to primary programs. For example, a university may find that a major part of the costs of instruction are due to the costs of large academic support programs such as animal farms, audio/visual departments, printing presses, and so forth. Further reviews may support the reduction in funding of some of these programs if the corresponding reduction in effectiveness is minimal. Alternatively, source of cost data may indicate that the cost of a particular support program is extremely low relative to the benefits being received. In this case future budget adjustments might be upward instead of downward.

b. A second internal management use would be to provide parameters for future budgeting. A good understanding of the production functions in the higher education process still does not exist. Whether a university is using its own budgeting techniques or whether it is relying on a simulation model, productivity factors and other kinds of parameters are needed to develop plans and allocate resources. Without a good understanding of the production functions, most budget officers are forced to rely on historical factors such as support cost per student, administrative cost per student, and so forth, in projecting the budget needed to support changing enrollments. Such an approach admittedly is crude, but in many cases it represents the only course available under the pressure of budget deadlines. The costing procedures recommended in this manual seek to improve those budgetary parameters.

Some words of caution should be expressed, however, about the use of CFP data in developing future resource allocations and plans. The CFP project is committed to developing average historical cost data as opposed to marginal or incremental costs. Furthermore, CFP will generate average costs for a single time frame--generally, a time frame matching the institution's fiscal year. Such parameters must be used with care in determining future resource needs. It is possible, however, to determine historical incremental costs by analyzing a series of CFP data over several consecutive years.

c. Institutions may find it convenient to use the software developed in the CFP project to assist in their calculations for reimbursement of indirect costs on sponsored research grants and contracts, that is, the A-21 calculations.* Many of the costing procedures recommended in this manual are compatible with those spelled out under A-21. The major difference between the two sets of costing procedures is one of scope and degree rather than one of kind. CFP focuses on all institutional activities while A-21 is concerned primarily with activities funded by research and training grants. Furthermore, CFP attempts to determine costs at a low level of detail (for example, discipline by course level) while the procedures recommended under A-21 calculate one overhead rate for the entire institution. In addition, A-21 spells out which costs are allowable for reimbursement and which are unallowable; CFP does not address this question. Despite these differences in objectives, several institutions have found the CFP software to be of value to them in making their indirect cost allocations for purposes of reimbursement by the Federal Government.

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*OMB Circular A-21 was recently republished as FMC 73-8 by the General Services Administration.

2. To Facilitate Interinstitutional Data Exchange.

Given a standard structure for displaying information and a standard set of procedures for deriving that information, institutions could, if they so desired, exchange information with reasonable assurance that the information is compatible. The Information Exchange Procedures (IEP) project, being developed concurrently with the CFP project, has as its objective the development of a standard set of measures, structures, and procedures to facilitate the exchange of information among institutions. One of the objectives of the CFP project is to develop the financial measures and procedures needed for the IEP project.

3. To Improve Capabilities for External Agency Reporting.

Institutions of higher education must respond to numerous requests for financial information from both federal and state agencies. Some of these take the form of recurring institutional surveys, such as the Higher Education General Information Survey conducted annually by the U.S. Office of Education. Others are related to special studies by more specialized agencies such as the National Science Foundation and the National Institute of Health. Still other requests, such as those of the Cost Accounting Standards Board, are more of the nature of contractual requirements on the part of funding agencies that provide either general institutional support or program and project support under specific grants and contracts.

The information requested by federal and state agencies for these various purposes logically may be expected to differ in level of detail and often in kind, depending on the intended use of the report. Nonetheless, when the same item of information is requested by more than one agency, it seems reasonable to strive for consistency in the item's definition and procedures for its derivation. Providing information to external agencies places a heavy burden on the institutions, one which is magnified by duplicate and sometimes conflicting requirements. A common set of costing procedures may result in more useful information for external agencies and, at the same time, reduce the reporting burden for institutions.

CHAPTER I

SECTION B - THE CFP PILOT TEST

Six institutions were directly involved in the Cost Finding Principles pilot test. They are: Community College of Philadelphia, Dartmouth College, Florida Atlantic University, State Center Community College of Fresno, State University of New York at Brockport, and University of Washington. Data were collected from all participating institutions according to the definitions and procedures agreed upon by the NCHEMS staff and the task force. After extensive analyses of these data, the task force was able to make the costing recommendations reflected in this manual.

Considerations in the Pilot Test

The most important consideration in the Cost Finding Principles pilot test is that funding limitations precluded testing in a large number of institutions. Fortunately, the sample is composed of extremely diverse types of institutions. However, no attempt was made to examine questions dealing with efficiency and scale of operation because of the small number of institutions involved.

A second consideration is that the pilot test collected data for only one year. This means that the task force was unable to look at costing changes over time within a given institution, though annual comparisons are likely to be the foundation for an institution's cost analyses. It is the feeling of the task force that longitudinal costs will need to be supplemented with comparative cost data from other institutions. Of course, there is much to be learned from comparing cost information across segments of an institution, even within a given time period. Such intra- and inter-institution comparisons within the same time period form the basis for the costing recommendations made in this document.

A third consideration about the pilot test data is that it is concerned almost solely with cost information. Cost information should not be divorced from benefits or outcomes. Outcome information was not included in the pilot test because the NCHEMS Information Exchange Procedures project is taking a more integrated and comprehensive view of costing and deals with input, process, and output.

Another consideration is that the pilot test data were concerned with average cost information. For management purposes, it often is important that marginal rather than average costs be examined. The decision to direct the Cost Finding Principles pilot test toward average rather than marginal costs was dictated mostly by the state of the art in costing. It seems that one must learn how to develop and use average costs before one can do the same with marginal costs. However, an institution may be in a good position to calculate a type of marginal costs when it has collected costing data for two or more years. This would be particularly true if there were significant shifts in its kind and size of effort over time.

Finally, it should be noted that the cost data collected in the CFP pilot test are some of the most detailed and standardized cost data to be collected from this diverse a group of schools. The analyses of these cost data are among the most extensive analyses carried out on data of this type solely for the purpose of identifying improved approaches to costing.

CHAPTER II

STRUCTURE, MEASURES, AND PROCEDURES

SECTION A - INTRODUCTION

This chapter discusses the structure, measures, and procedures used for cost finding purposes. Section A describes the Program Classification Structure, used as the basic structure for categorizing all data elements. Section B defines the measures, that is, those data elements necessary to conduct a cost study. Section C illustrates a brief step-by-step overview of the procedures used in conducting a cost study.

It should be noted at the outset that two documents are used extensively as the basis for the discussion of the structure, measures, and procedures:

> Program Classification Structure (Gulko, 1972) which defines a structure for organizing the activities of higher education in a standard way.
>
> Faculty Activity Analysis Procedures Manual (Manning and Romney, 1973) which illustrates a faculty survey instrument and recommends procedures for conducting a survey.

The reader should be familiar with these documents before attempting to implement the cost finding procedures described in this document.

CHAPTER II

SECTION B - STRUCTURE

The initial requirement for costing is a structure to identify and categorize similar patterns of activity. Traditionally, colleges and universities have attempted to analyze their costs in a framework that closely paralleled their institutional chart of accounts. The Cost Finding Principles project, on the other hand, categorizes activities and their associated costs on the basis of institutional programs. To do this, Cost Finding Principles is relying upon the NCHEMS Program Classification Structure (PCS) as an example of a program-oriented structure.

The titles, codes, and definitions used in this manual stem from the PCS. Figure 1 illustrates the major categories incorporated in the PCS, although it does not indicate all the detail the PCS is capable of describing. For the purposes of the CFP project, the PCS has been slightly modified to indicate PCS Activity Centers that are meaningful for collecting and reporting data. "Activity Center" is the term used to describe a specified level of aggregation of this standard structure where information is to be lodged for costing purposes. The coding and level of aggregation to be used in the activity centers specified in this manual are summarized in Table 1. In Table 1 the x's indicate where disaggregation to the discipline and course level is recommended. It is important to note that the term "activity center" as used in the manual may refer to different levels of aggregation for different kinds

FIGURE 1

NCHEMS PROGRAM CLASSIFICATION STRUCTURE

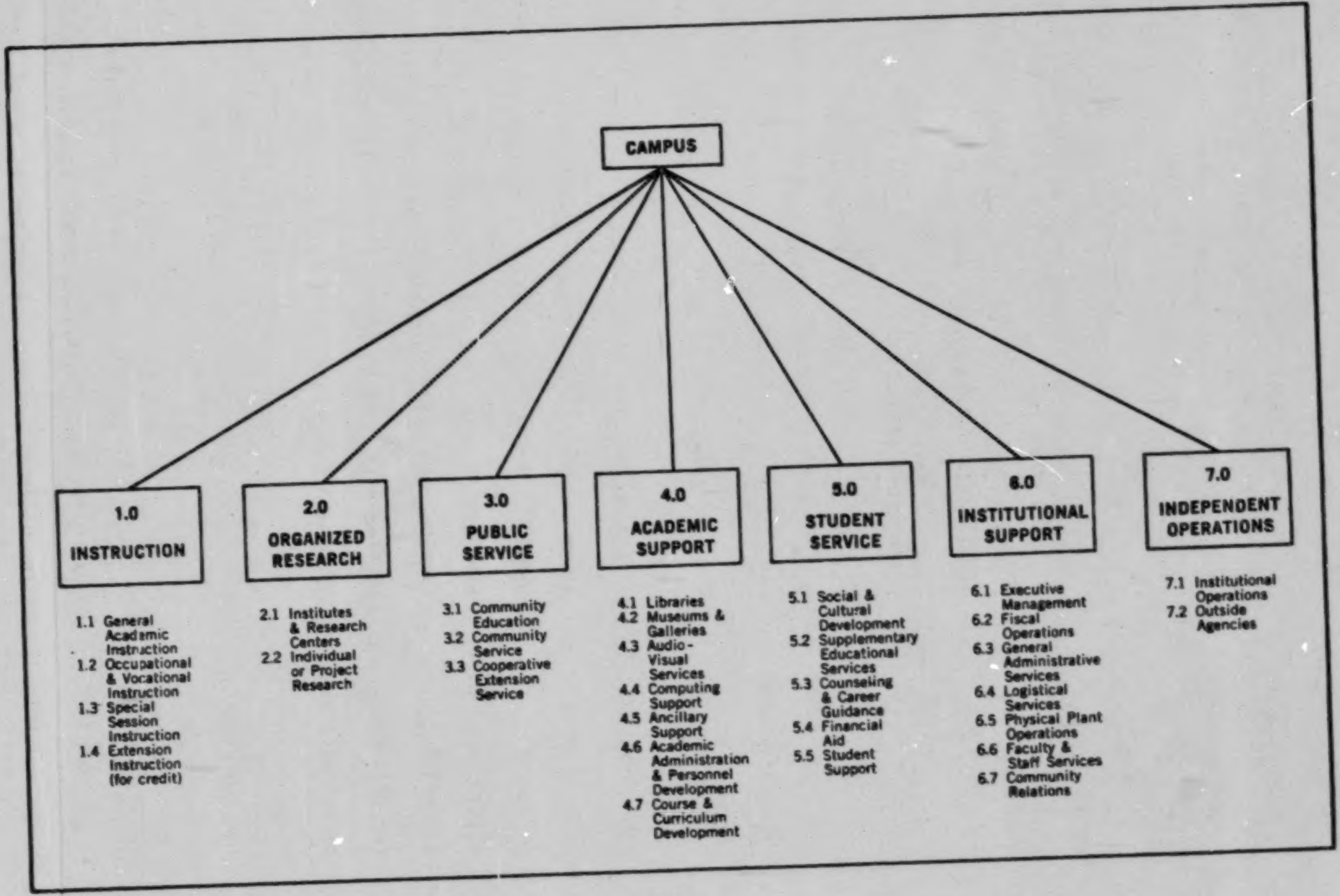

CAMPUS
1.0 INSTRUCTION
1.1 General Academic Instruction
1.2 Occupational & Vocational Instruction
1.3 Special Session Instruction
1.4 Extension Instruction (for credit)
2.0 ORGANIZED RESEARCH
2.1 Institutes & Research Centers
2.2 Individual or Project Research
3.0 PUBLIC SERVICE
3.1 Community Education
3.2 Community Service
3.3 Cooperative Extension Service
4.0 ACADEMIC SUPPORT
4.1 Libraries
4.2 Museums & Galleries
4.3 Audio-Visual Services
4.4 Computing Support
4.5 Ancillary Support
4.6 Academic Administration & Personnel Development
4.7 Course & Curriculum Development
5.0 STUDENT SERVICE
5.1 Social & Cultural Development
5.2 Supplementary Educational Services
5.3 Counseling & Career Guidance
5.4 Financial Aid
5.5 Student Support
6.0 INSTITUTIONAL SUPPORT
6.1 Executive Management
6.2 Fiscal Operations
6.3 General Administrative Services
6.4 Logistical Services
6.5 Physical Plant Operations
6.6 Faculty & Staff Services
6.7 Community Relations
7.0 INDEPENDENT OPERATIONS
7.1 Institutional Operations
7.2 Outside Agencies

TABLE 1

CODES AND TITLES OF ACTIVITY CENTERS

CODE	TITLE
1.1.XXXX.XX	General Academic Instruction - by HEGIS discipline and course level
1.2.XXXX.XX	Occupational and Vocational Instruction - by HEGIS discipline and course level
1.3.XXXX.XX	Special Session Instruction - by HEGIS discipline and course level
1.4.XXXX.XX	Extension Instruction - by HEGIS discipline and course level
2.1.XXXX	Institutes and Research Centers - by HEGIS discipline
2.2.XXXX	Project Research - by HEGIS discipline
3.1.XXXX	Community Education - by HEGIS discipline
3.2.XXXX	Community Service - by HEGIS discipline
3.3.6600	Cooperative Extension Service - Agriculture
3.3.6700	Cooperative Extension Service - Urban and Other
*3.4.XXXX	Patient Services - by HEGIS discipline
*3.5.XXXX	Specialized Training Programs - by HEGIS discipline
4.1.XX00	Libraries - by HEGIS discipline category
4.2.	Museums and Galleries
4.3.	Audio/Visual Service
4.4.	Computing Support
4.5.XXXX	Ancillary Support - by HEGIS discipline
4.6.XXXX	Academic Administration and Personnel Development - by HEGIS discipline

*CFP Modification to PCS

TABLE 1 (Continued)

CODE	TITLE
4.7.XXXX	Course and Curriculum Development - by HEGIS discipline
5.1.7100	Student Development
5.1.7200	Intercollegiate Athletics
5.2	Supplementary Educational Services
5.3	Counseling and Career Guidance
5.4	Financial Aid Administration
5.5.7310	Student Food Services
5.5.7320	Student Health Services
5.5.7330	Student Housing Services
5.5.7340	Student Retail Services and Concessions
5.5.7400	Special Student Services
*5.6	Student Admissions and Records
6.1.8110	Executive Direction
6.1.8120	Planning and Programming
6.1.8130	Legal Services
6.2.8140	Fiscal Control
6.2.8150	Investments
6.2.8210	Financial Operations
6.3.8160	Administrative Support
6.3.8165	Space Management
6.3.8230	Employee Personnel and Records

*CFP Modification to PCS

TABLE 1 (Continued)

CODE	TITLE
6.4.8170	Environmental Health and Safety
6.4.8240	Purchasing and Materials
6.4.8251	Mail and Distribution
6.4.8252	Telephone and Telegraph
6.4.8253	Printing and Reproduction
6.4.8260	Transportation Services
6.5.8310	Utilities
6.5.8320	Building Maintenance
6.5.8330	Grounds Maintenance
6.5.8340	Custodial Services
6.5.8420	Facility Remodeling
6.5.8430	Landscaping and Grounds Modification
6.6.7310	Faculty Food Services
6.6.7320	Faculty Health Services
6.6.7330	Faculty Housing Services
6.6.7340	Faculty Retail Services
6.7.8175	Alumni Relations
6.7.8180	Community Relations
6.7.8185	Development
*6.8	Capital Cost - Buildings and Land Improvements
*6.9	Capital Cost - Equipment

*CFP Modification to PCS

TABLE 1 (Continued)

CODE	TITLE
7.1	Independent Operations - Institutional
7.2	Independent Operations - Outside Agencies
*8.1	Scholarships
*8.2	Fellowships
*9.0	Hospitals

*CFP Modification to PCS

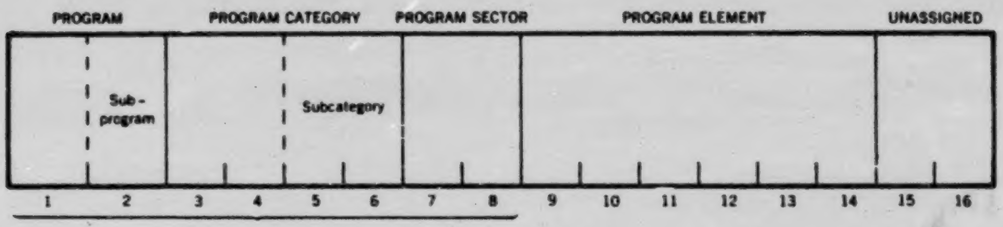
of activities. For example, 1.1.xxxx.xx is an activity center as are 2.1.xxxx and 4.2. Throughout the manual, the appropriate level of aggregation associated with each activity center is clearly specified.

The definitions, descriptions, limitations, and usage associated with each of the PCS activity centers summarized in Table 1 are found in Appendix B. The reader should be familiar with these definitions before proceeding with the categorization of costs and other related measures.

The coding for the activity centers used in this manual is based on the PCS code. The PCS uses a sixteen digit code but only eight digits are used in the CFP. Figure 2 illustrates the elements of this code.

FIGURE 2

SIXTEEN DIGIT PCS CODE


PROGRAM
PROGRAM CATEGORY
PROGRAM SECTOR
PROGRAM ELEMENT
UNASSIGNED
Sub-program
Subcategory
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Codes used in the CFP manual
for the activity centers of
the Program Classification
Structure

A brief explanation of the codes for "Program," "Program Category," and "Program Sector" follows:

The code for program includes two numbers. The first number refers to the aggregation that structures activities into major objectives.

Example:	①.0	Instruction
	②.0	Research

The second number in the code is used to identify major subsets of activities in terms of subobjectives of the program. This number, when used, indicates the subprogram designation.

Example:	1.①	General Academic Instruction
	1.②	Occupational-Vocational Instruction

Program Category is a classification of similar or related activities by discipline area or major function. In the activity centers groups of Instruction, Research, and Public Service, the coding in the program category corresponds to the standard taxonomy of fields of study used in the Higher Education General Information Survey (HEGIS). A reprint (referred to as the "HEGIS Taxonomy") appears in Appendix C. Four digits are used to denote specific discipline areas. The first two digits specify the program category and the second two define the program subcategory.

Example:	1.1.0502	General Academic Instruction - Accounting
	1.2.5012	Occupational-Vocational Instruction Advertising Design Technologies

In other programs, 4.0 through 7.0, program category coding is specified by the Program Classification Structure.

Program Sector is designed primarily to identify the level of course for Instruction activities. It is a two digit code. The first digit indicates lower division, upper division, and so forth; the second digit remains unassigned.

Example:	1.1.0502.20	General Academic Instruction Accounting Lower Division
	1.1.0502.30	General Academic Instruction Accounting Upper Division

The coding for the remaining eight digits is institutionally defined when used; these remaining eight digits are not used in CFP.

CHAPTER II

SECTION C - MEASURES

Measures describe participants, resources, activities, finances, and outcomes. The use of the term "measure" implies that a unit of measurement can be identified and that these units can be defined, aggregated, and displayed in a standard manner. The focus of the CFP project is to develop financial measures, that is, measures that reflect costs of physical and human resources used at a specific level of activity during a stated period of time. Other items of information are required by the costing procedures in addition to financial measures. For example, resource measures, such as full-time equivalent personnel or assignable square feet, typically are used as parameters in the allocation of support costs. Likewise, certain activity measures, such as course enrollments and student contact hours, are useful in calculating unit costs for the Instruction program. The nondollar items of information are referred to collectively as nonfinancial measures.

Financial Measures

Following is a list of financial terms and definitions for data needed to implement the cost finding procedures.

1. Instruction/Research/Public Service Personnel Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel

(as classified under the Fair Labor Standards Act) who have a majority (50% or more) of their activities in 1.0, 2.0, and 3.0 of the PCS.

2. Administrative/Support Personnel Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel who have a majority (more than 50%) of their activities in 4.0, 5.0, 6.0, and 9.0 of the modified PCS.

3. Other Staff Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all nonexempt personnel.

4. Supplies and Services Expenditures: A broad category of expenditures including all kinds of current funds expenditures except compensation, capital expenditures, and scholarships and fellowships. Supplies and services include:

   a. Supplies: Consumable instructional, research, and office supplies and materials.
   b. Communications: Telephone, telegraph, postal, printing, binding, and reproduction services.
   c. Travel: Transportation, food, lodging, and miscellaneous expenses reimbursed to an employee when representing or conducting business for the institution.

d. Other Contractual Services: All other services procured from outside sources that can be directly identified with a particular activity center (for example, consulting services).

e. Noncapital Equipment: Those items of property that have an acquisition cost of less than $500 or an expected service life of less than two years.

5. Capital Expenditures: Funds expended for land, improvements to land, buildings, additions to buildings, and equipment with an acquisition cost of $500 or more and an expected service life that exceeds two years.*

6. Capital Costs: The valuation placed upon the services provided by buildings and equipment owned (or leased) and used by an institution during any time period. The capital cost of an asset is measured by computing its annual depreciation plus a charge for the annual interest foregone on the investment in that asset.

7. Scholarships and Fellowships: Includes all grants, stipends, tuition and fees remissions, and gifts to students that are outright awards and are not contingent on services to be rendered by the student. This student aid can be federally, state, locally, privately, or institutionally derived.

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*The Task Force recognizes that individual schools or states may have established specific guidelines for determining capital expenditures different from those stated in this manual. The minimum service life and acquisition cost criteria used in this text have been adopted for the implementation of the IEP project and reflect the current guidelines established by the Cost Accounting Standards Board.

8. Direct Costs: Those categories of expenditures assigned directly to activity centers, consisting of:
   a. Instruction/research/public service personnel compensation
   b. Administrative/support personnel compensation
   c. Other staff compensation
   d. Supplies and services expenditures.

9. Support Costs: Those costs not assigned directly to a final cost objective. Support costs are assigned first to support activity centers and subsequently are allocated to final cost objectives via an allocation parameter.

10. Full Costs: The sum of direct costs, capital costs, and allocated support costs for an activity center or group of activity centers.

Nonfinancial Measures

Following is a list of nonfinancial terms and definitions for data recommended for implementing the cost finding procedures:

1. Semester Credit: A unit of measure that represents one student engaged in an instructional activity for a semester for which one credit or fraction thereof is granted toward a degree, diploma, or certificate upon completion of the activity. Total semester credits for a course level within a discipline are calculated by multiplying the course credit value by the number of students enrolled in each course and aggregating the results by course level.

2. Student Contact Hour: A unit of measure that represents one hour of instruction given to one student in one week. Total student contact hours for a course level within a discipline are calculated by multiplying the number of hours per week each course or section is scheduled to meet by the number of students enrolled and aggregating the results by course level.

3. Course Enrollment: A unit of measure that represents one student enrolled in one course or one section of a course. Total course enrollments for a course level within a discipline are calculated by summing the number of students enrolled in each course or section and aggregating the totals by course level.

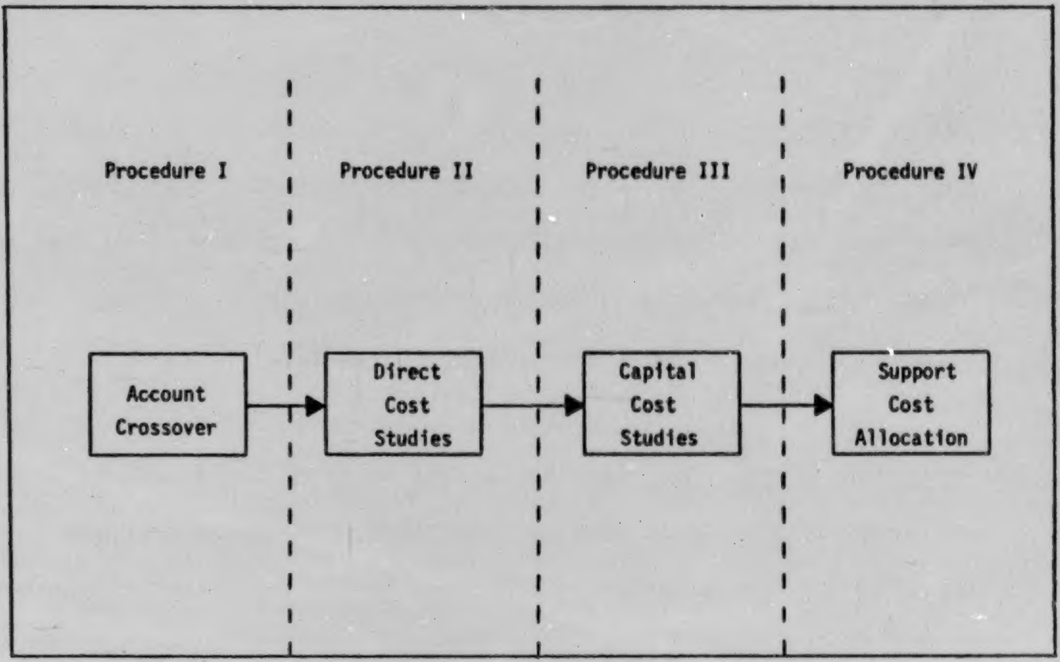
4. Assignable Square Feet: The sum of all areas of all floors of a building assigned to or available for assignment to an occupant, including every type of space functionally usable by the occupant except those spaces defined as custodial, circulation, mechanical, and structural areas.

5. FTE Service Months: The actual number of full-time equivalent months worked by one person during a fiscal year. Service months include time worked regardless of pay period (for example, 12 monthly checks for 10 "service months" of work).

CHAPTER II

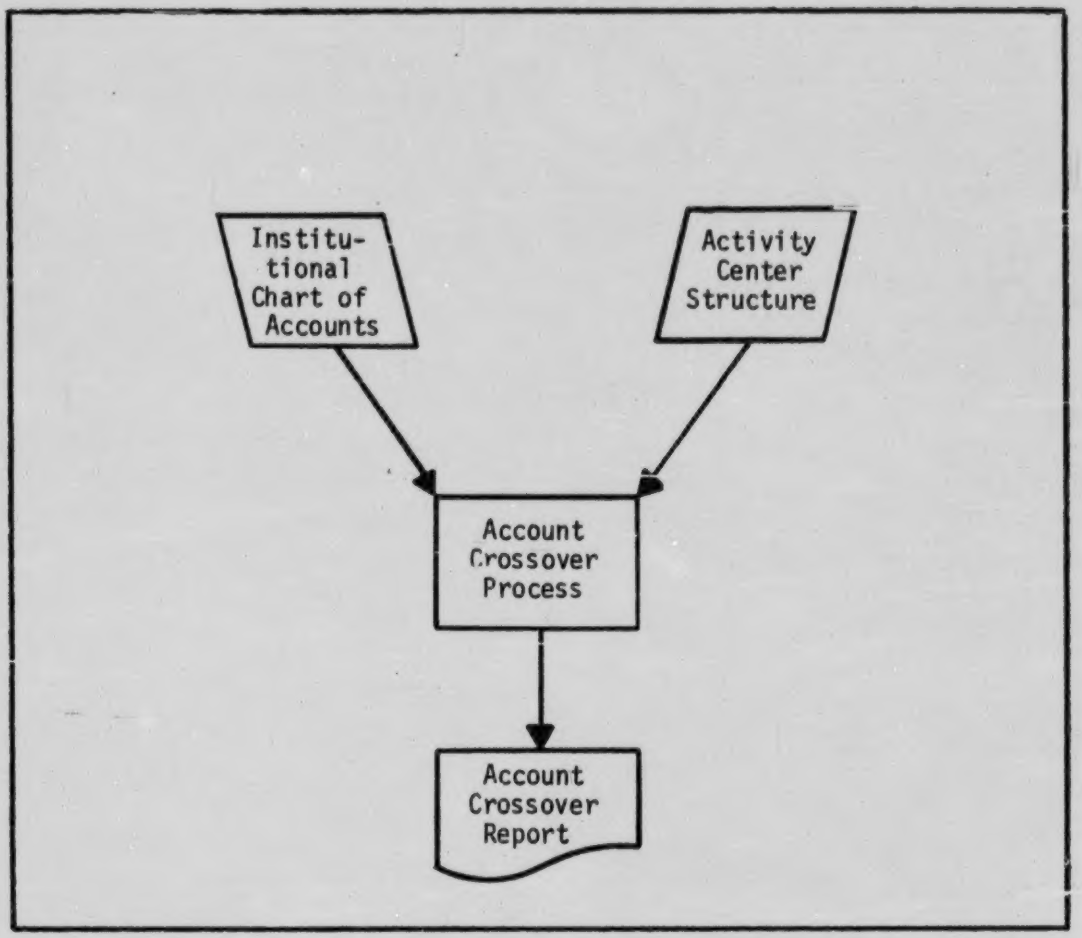
SECTION D - PROCEDURES

FIGURE 3: COST FINDING PROCEDURES


Procedure I
Procedure II
Procedure III
Procedure IV
Account Crossover
Direct Cost Studies
Capital Cost Studies
Support Cost Allocation

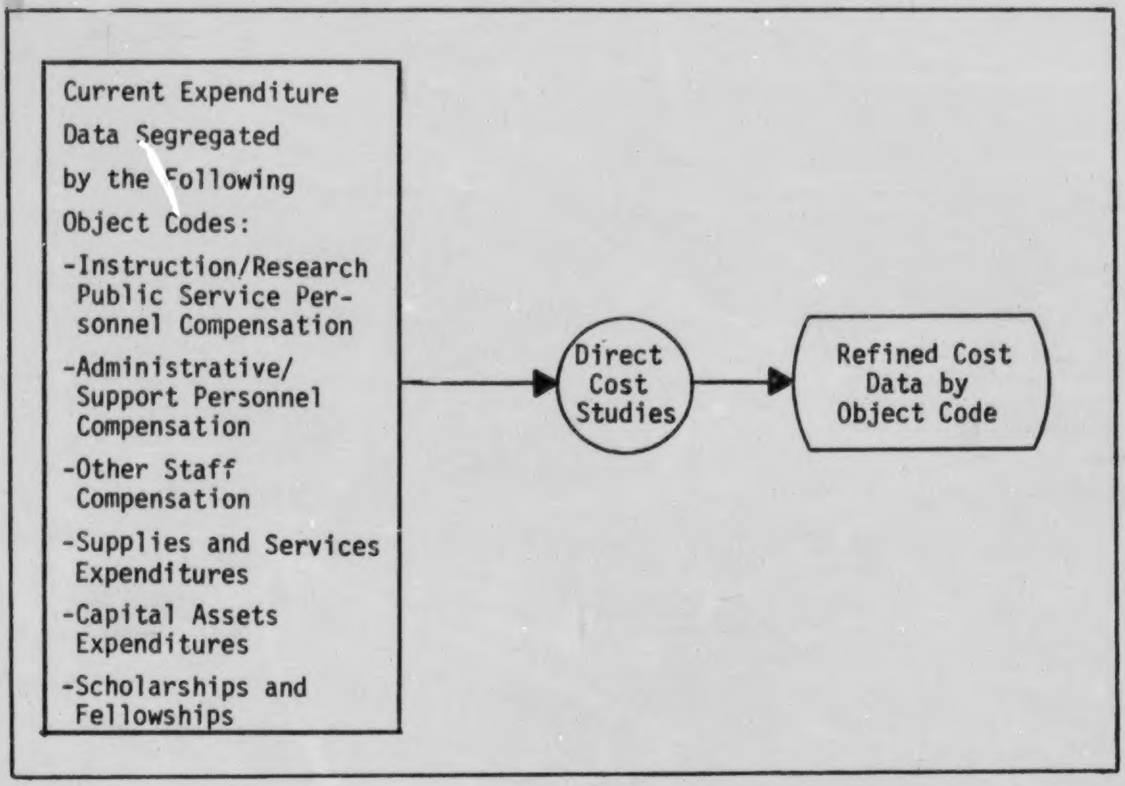
Cost finding may be viewed as a four step process: account crossover, direct cost studies, capital cost studies, and support cost allocation. (See Figure 3.) Each of these procedures is briefly defined and illustrated in the following pages. In addition, reference is made to the chapters in this manual that discuss each of the procedures in detail.

FIGURE 4: ACCOUNT CROSSOVER


Institutional Chart of Accounts
Activity Center Structure
Account Crossover Process
Account Crossover Report

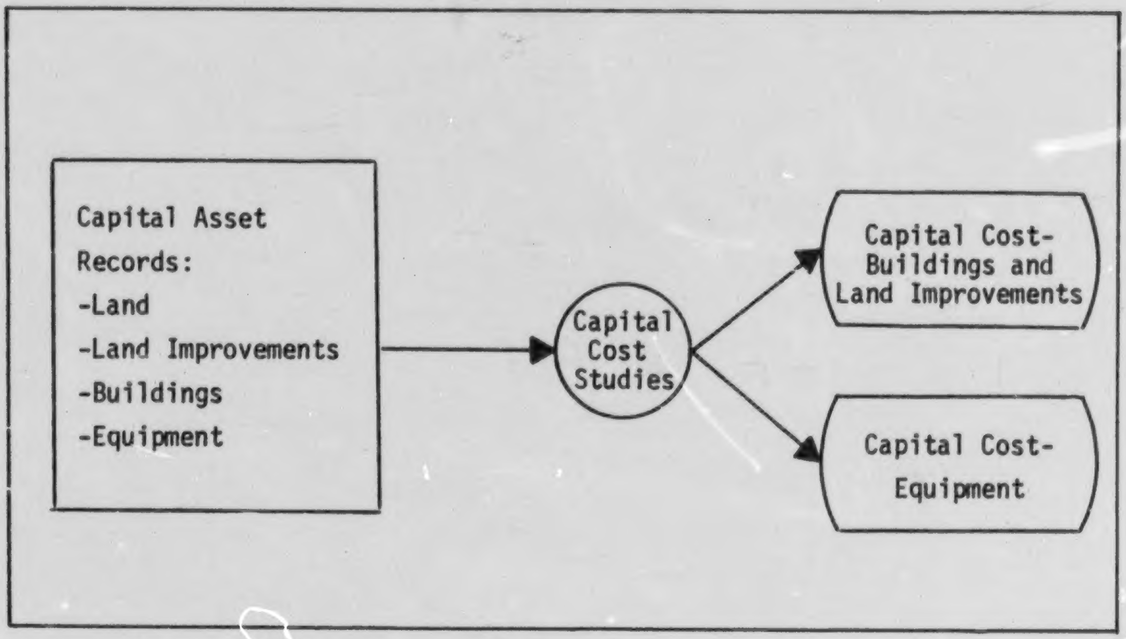
The Account Crossover is the process whereby the accounts in a fund accounting system are matched with the activity centers in the Program Classification Structure. Chapter III identifies those accounts to be crossed over, the level of detail at which the crossover should be made, and the objects of expenditure to be maintained. It also discusses problems commonly encountered when performing an account crossover.

FIGURE 5: DIRECT COST STUDIES


Current Expenditure Data Segregated by the Following Object Codes:
-Instruction/Research Public Service Personnel Compensation
-Administrative/ Support Personnel Compensation
-Other Staff Compensation
-Supplies and Services Expenditures
-Capital Assets Expenditures
-Scholarships and Fellowships
Direct Cost Studies
Refined Cost Data by Object Code

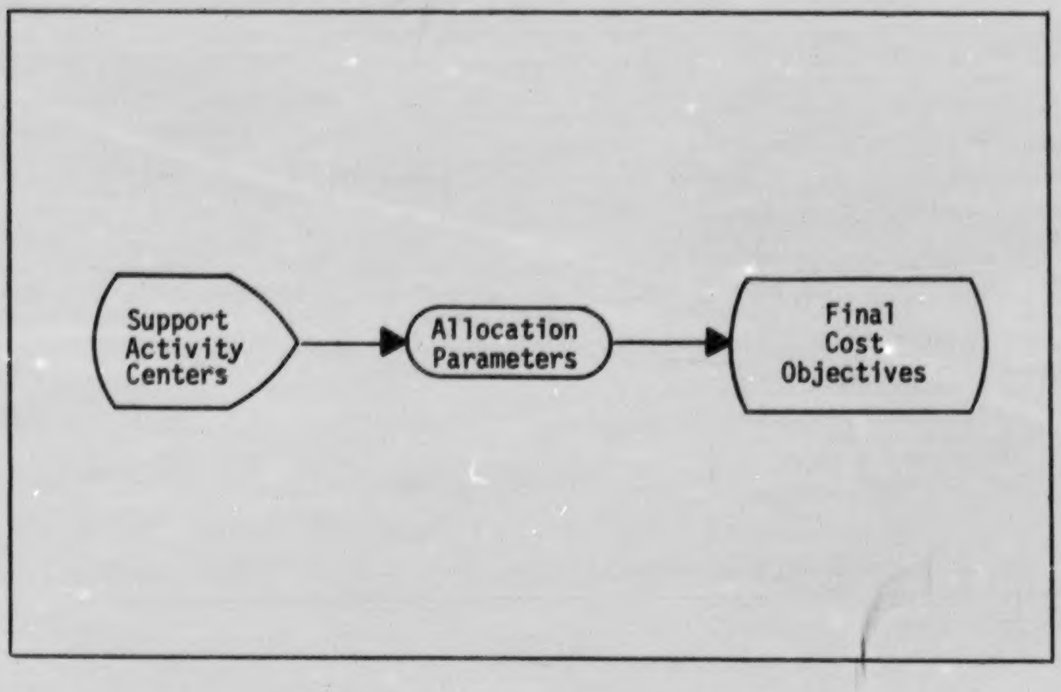
Direct Cost Studies are separate surveys or analyses of aggregate cost categories (objects of expenditure) conducted to gather additional information that aids in the assignments of costs to activity centers. For the purposes of Cost Finding Principles, current expenditures are segregated into the following categories: instruction/research/public service personnel compensation, administrative/support personnel compensation, other staff compensation, supplies and services expenditures, capital assets expenditures, and scholarships and fellowships. Chapter IV focuses on the direct cost procedures recommended for each of the personnel groups and supplies and services expenditures.

FIGURE 6: CAPITAL COST STUDIES


Capital Asset Records:
-Land
-Land Improvements
-Buildings
-Equipment
Capital Cost Studies
Capital Cost- Buildings and Land Improvements
Capital Cost- Equipment

Capital Cost Studies are separate analyses of the institution's capital asset records to arrive at an annual use charge for the use of its capital assets. Chapter V defines four categories of capital assets, sets forth procedures for calculating the annual capital costs for land improvements, buildings, and equipment, and specifies the parameters recommended for allocating these capital costs to activity centers.

FIGURE 7: SUPPORT COST ALLOCATION


Support Activity Centers
Allocation Parameters
Final Cost Objectives

Support Cost Allocation refers to the process of transferring the costs lodged in the support activity centers to the final cost objectives using allocation parameters (financial and nonfinancial measures) that approximate actual or potential resource use. Chapter VI makes the distinction between support activity centers and final cost objectives and identifies the parameters recommended for allocating the costs associated with the support activity centers.

CHAPTER III

THE ACCOUNT CROSSOVER

SECTION A - EXPENDITURES TO BE INCLUDED IN THE ACCOUNT CROSSOVER

All expenditures of the current funds, as reported in the institutional expenditure files for a fiscal year, are included in the crossover procedures. Within the current funds group, accounts that do not represent expenditures (for example, asset accounts, liability accounts, fund balance accounts, budgetary accounts, and "income only" accounts) should be excluded from the crossover. Current funds expenditures and mandatory transfers, as defined by Audits of Colleges and Universities (AICPA, 1973), comprise:

1. All expenses incurred, determined in accordance with the generally accepted accrual method of accounting, except for the omission of depreciation;

2. Expenditures from current funds for renewals and replacements of equipment; and

3. Amounts transferred to plant funds as required for debt service, including principal, interest, and mandatory provisions for renewals and replacement of facilities.

Several categories of expenditures require special treatment during the account crossover before total direct costs can be calculated.

Separately Incorporated Units: For cost finding purposes, include expenditures of all separately incorporated but related units for which the institution is fiscally responsible. Examples of such separately incorporated units are university presses, student unions, and research foundations.

Mandatory Transfers: Mandatory transfers include all transfers from the current funds group that must be made to other funds groups to fulfill a binding legal obligation of the institution. Examples of mandatory transfers from the current funds group are provision for debt service on educational plant and loan fund matching grants. Funds in this category should be excluded during the account crossover.

Nonmandatory Transfers: Nonmandatory transfers are those transfers made at the discretion of the institution's governing board. Funds made available as a result of nonmandatory transfers into the current funds group, when expended during the reporting period, should be classified in the appropriate PCS activity centers.

Interdepartmental Transactions: During the account crossover, the gross expenditures of the institution's internal service departments should be reduced by credits arising from the transfer of costs to the using departments. The net expenditures should remain in appropriate expenditure categories of the internal service department.

Reimbursement of Indirect Costs: Indirect costs that appear as expenditures in grant and contract accounts represent reimbursement for expenditures previously recorded in various institutional support accounts. These reimbursements from the funding agency should not be reported as expenditures in the grant and contract accounts. If this were done, expenditures in the amount of the indirect costs reimbursement would be doubly counted.

Current Expenditures for Capital Assets: A capital asset is defined as any physical resource which benefits a program for more than one operating period. Capital expenditures, therefore, include monies expended for land, improvements to land, buildings, additions to buildings, and capital equipment. Most institutional accounting systems record at least a portion of capital expenditures in the current funds expenditure accounts of the various operating units. Whether an expenditure is to be considered a capital expenditure generally is a matter for institutional determination or, in the case of some public institutions, is prescribed by state regulations. However, for the purposes of information exchange, a minimum service life of two years and a minimum acquisition cost of $500 have been adopted as guidelines for determining capital assets. During the account crossover current funds capital expenditures should be "tagged" with the appropriate object code and included as expenditures of the organizational unit that expends the funds. In later steps in the cost finding process capital expenditures are excluded and replaced with a capital cost that represents an annual depreciation charge for the capital asset plus a charge for the annual interest foregone on the investment in that asset.

Rental Expenditures: Rental expenditures for buildings and equipment not identified with a specific organizational unit should be crossed over to the following activity centers:

6.8 Capital Cost - Buildings & Land Improvements
6.9 Capital Cost - Equipment

These rental expenditures will be pooled with other capital costs and distributed to activity centers according to procedures spelled out in Chapter V. For information exchange purposes, all rental expenditures should be considered capital costs regardless of whether or not they are direct charges in the accounting system.

Financial Aid: Financial aid refers to all forms of student financial assistance either awarded by or administered through the institution. It includes outright grants (referred to collectively as scholarships and fellowships), student loans, and work/study assistance. Each of these three categories of financial aid is handled in a different way for cost purposes.

Scholarships and Fellowships: Two activity centers have been established to account for student aid dollars included in the current funds expenditures:

Scholarships (8.1) includes outright grants in aid to undergraduate students.

Fellowships (8.2) includes outright grants in aid to graduate students. Does not include funds for which services to the institution must be rendered (for example, payments for teaching).

Student Loans: Student loans represent a conversion of cash to receivables and as such should not be included in the current funds group. The *Audit Guide* recommends that loans to students be recorded in the loan funds (and therefore excluded from the account crossover).

Work/Study Assistance: When services are required in exchange for the financial assistance, as in the Federal College Work/Study Program, the charges should be classified as expenditures of the department or organizational unit to which the service is rendered. This general rule applies also to teaching assistants and research assistants.

SECTION B - CROSSOVER PROCEDURES

Step 1: Analyze each institutional account in the current funds group to identify the activities supported by that account.

For those institutions that follow the accounting principles and procedures contained in College and University Business Administration (ACE: 1968) (the CUBA Manual) the typical account is coded to include the following kinds of information:

- °the campus on a multicampus system
- °the source of funds and fund group
- °the college or closely related group of accounts
- °the academic department or equivalent organizational unit
- °the CUBA functional classification
- °a specific project within the department
- °the revenue or expenditure objective classification.

When analyzing the account to determine the activities it supports, one should focus on the academic department, the CUBA functional classification, the specific project, and, in some cases, the source of funding. The meaning of the digits associated with each type of information, in addition to the account name, should allow the user to identify most of the activities associated with each account.

Step 2: Based on the analysis of activities supported by each account, identify the one PCS activity center most appropriately associated with each account.

Table 2 will aid the user in making the crossover from the CUBA functional categories to the PCS activity centers. This table is not to be interpreted as representing standard crossover procedures. The task force and NCHEMS staff have found that standard crossover procedures are impossible to develop because of the various ways in which institutions currently maintain their accounting data. However, by explicitly defining the endpoints of the crossover procedure (the PCS activity centers), it is hoped institutions can array their accounting data in a format that eventually will be compatible for data exchange.

TABLE 2 : CUBA FUNCTIONAL CATEGORIES/PCS MAPPING CONVENTIONS

CUBA FUNCTIONAL CATEGORY	PCS ACTIVITY CENTER	REMARKS
Instruction and Departmental Research	1.1.xxxx General Academic Instruction, by HEGIS discipline	Expenditures in these accounts should be mapped to the appropriate HEGIS discipline. Subprogram 1.1 is reserved for HEGIS disciplines coded 100 through 4900. Subprogram 1.2 is reserved for HEGIS disciplines coded 5000 through 5500.
	1.2.xxxx Occupational and Vocational Instruction, by HEGIS discipline	
	1.3.xxxx Special Session Instruction, by HEGIS discipline	Special Session expenditures should be mapped to 1.3 and identified by the appropriate HEGIS code wherever possible.
	4.6.xxxx Academic Administration and Personnel Development, by HEGIS discipline	Any academic administrative activities that are separately budgeted, e.g., an academic dean and his support staff, should be mapped to 4.6 and identified by the appropriate HEGIS code.
	4.7.xxxx Course and Curriculum Development, by HEGIS discipline	Any course and curriculum development activities that are separately budgeted, e.g., a new Black Studies program, should be mapped to 4.7 and identified by the appropriate HEGIS code.
Organized Activities Related to Educational Departments	1.1.xxxx General Academic Instruction, by HEGIS discipline	If these activities serve more than one program within a single HEGIS discipline, they should be mapped to 4.5 with the appropriate HEGIS code attached. If the activities are related to more than one HEGIS discipline, they should be mapped to 4.5 with the first two digits of the HEGIS code attached wherever possible.
	1.2.xxxx Occupational and Vocational Instruction, by HEGIS discipline	
	4.5.xxxx Ancillary Support, by HEGIS discipline category	

TABLE 2 (Continued)

CUBA FUNCTIONAL CATEGORY	PCS ACTIVITY CENTER	REMARKS
Sponsored Research	2.2.xxxx Individual or Project Research, by HEGIS discipline	These accounts can usually be identified by their source of funding and the specific project title. Excludes departmental research not separately budgeted or financed.
Other Separately Budgeted Research	2.1.xxxx Institutes and Research Centers, by HEGIS discipline	These accounts can usually be identified by their source of funding and the account title. Excludes departmental research not separately budgeted or financed.
Other Sponsored Programs	3.5.xxxx Training Grants, by HEGIS discipline	These accounts can usually be identified by their source of funding and the specific project title.
Extension and Public Service	1.4.xxxx Extension Instruction for Credit, by HEGIS discipline	The accounts that support extension instruction offered for credit should be mapped to 1.4.xxxx. All other accounts should be mapped to the appropriate Public Service subprogram (3.x.xxxx).
	3.1.xxxx Community Education, by HEGIS discipline	
	3.2.xxxx Community Service, by HEGIS discipline	
	3.3.xx00 Cooperative Extension Service, by PCS program category	
	3.4.xxxx Patient Services, by HEGIS discipline	Any patient service activities that are separately budgeted, e.g., a speech clinic, should be mapped to 3.4 and identified by the appropriate HEGIS code.

TABLE 2 (Continued)

CUBA FUNCTIONAL CATEGORY	PCS ACTIVITY CENTER		REMARKS
Libraries	4.1.xx00	Libraries, by HEGIS discipline category	The accounts that support the general library should be mapped to 4.1. If the library can be identified with a group of disciplines, e.g., Law or Business, the first two digits of the HEGIS code should also be used.
Student Services	5.1.7100	Student Development	The particular activity center may be identified by the source of funds or unique institutional account number.
	5.2	Supplementary Educational Services	
	5.3	Counseling and Career Guidance	
	5.4	Financial Aid Administration	
	5.6	Student Admissions and Records	
Operation and Maintenance of Physical Plant	6.5.xxxx	Physical Plant Operations, by functional subcategory	Refer to the complete list of activity centers for the appropriate level of detail within 6.5.
General Administration	6.1.xxxx	Executive Management, by functional subcategory	These accounts generally relate to the executive or administrative direction of the institution as a whole. Refer to the complete list of activity centers for the appropriate level of detail within 6.1.

TABLE 2 (Continued)

CUBA FUNCTIONAL CATEGORY	PCS ACTIVITY CENTER		REMARKS
General Institutional Expenses	4.2	Museums and Galleries	Academic support activities that serve the entire institution should be categorized by appropriate PCS subprogram. If the academic support activity serves only a restricted group of disciplines, then the appropriate HEGIS code should also be attached. Refer to the complete list of activity centers for the appropriate level of detail within each of the institutional support subprograms.
	4.3	Audio/Visual Services	
	4.4	Academic Computing Support	
	6.2.xxxx	Fiscal Operations, by functional subcategory	
	6.3.xxxx	General Administrative Services, by functional subcategory	
	6.4.xxxx	Logistical Services, by functional subcategory	
	6.7.xxxx	Community Relations, by functional subcategory	
Auxiliary Enterprises	5.1.7200	Intercollegiate Athletics	The particular activity center may be identified by the source of funds or unique institutional account number. Refer to the complete list of activity centers for the appropriate level of detail within 5.5 and 6.6.
	5.5.xxxx	Student Support, by PCS subcategory	
	6.6.xxxx	Faculty and Staff Services by PCS subcategory	
	7.0	Independent Operations	

TABLE 2 (Continued)

CUBA FUNCTIONAL CATEGORY	PCS ACTIVITY		REMARKS
Student Aid	8.1	Scholarships	These accounts consist of the actual dollars of aid distributed to students. Excluded are expenditures for the administration of student aid.
	8.2	Fellowships	
Hospitals	9.0	Hospitals	Expenditures for the entire hospital operation, including patient care services performed in the hospital should be crossed over to 9.0.

Step 3: Create an institutional account/PCS activity center look-up table. (See Table 3.)

This table serves to document steps one and two. Based on the experiences of several institutions, it may take several iterations to get the crossover of accounting data into an acceptable PCS format. A more detailed account analysis may be postponed until a second or third iteration. A look-up table is essential to the conduct of such iterations.

Step 4: Transfer the total expenditures (net of internal transfers) recorded in each account to the appropriate PCS activity center identified in Step 2.

Once an institutional account/PCS activity center look-up table has been created, it is a straightforward procedure to cross over the total expenditures associated with each account to the appropriate PCS activity center. It is recommended that accounts be crossed over in total; at this point no attempt should me made to distribute the expenditures associated with a single account to more than one activity center. The crossover of expenditures into the appropriate activity centers often will require completing a direct cost study. For example, instruction/research/public service personnel compensation reported in the CUBA Manual category "Instruction and Departmental Research" for the Physics department may be

TABLE 3: INSTITUTIONAL ACCOUNT/PCS ACTIVITY CENTER LOOK-UP TABLE*

Institutional Account Code	Institutional Account Name	PCS Code	PCS Activity Center Name
10-0100	College of Arts & Sciences	4.6.0000	Academic Administration, General
10-0103	Department of Mathematics	1.1.1701	General Academic Instruction, Mathematics
21-2100	Student Newspaper	5.1.7110	Social & Cultural Development, Student Activities
10-2200	Remedial Instructional Skill Center	5.2.0000	Supplementary Educational Services, General
23-0104	Waterfowl Migration Study	2.2.0401	Individual or Project Research, Fish, Game & Wildlife Management
26-0308	Bureau of Business Research	2.1.0500	Institutes & Research Centers, Business and Commerce, General
27-0100	FORTRAN Programming	5.2.0070	Supplementary Educational Services, General
10-0900	Extension Division	1.4.0000	Extension Instruction (for credit)
10-2300	Central Library	4.1.0000	Libraries, General
10-2400	Student Health Service	5.5.7320	Student Support, Health Services
10-2500	Maintenance of Buildings	6.5.8320	Physical Plant Operations, Building Maintenance
10-2604	Vice-President for Business Affairs	6.1.8110	Executive Management, Executive Direction
32-3001	Intercollegiate Athletics	5.1.7200	Intercollegiate Athletics
10-2803	Bulletins & Catalogues	5.6.0000	General Administrative Services, Student Admissions & Records
31-2903	Scholarships	8.1.0000	Scholarships
34-3003	Food Service	5.5.7310	Student Support, Food Services

*Summarized from MICRO-U II, a training document utilized in NCHEMS Training Seminars.

mapped eventually to any or all of the following activity centers based on the results of a faculty activity analysis:

1.1.1902	General Academic Instruction
1.2.1902	Occupational and Vocational Instruction
1.4.1902	Extension Instruction (for credit)
2.2.1902	Individual or Project Research
4.6.1902	Academic Administration and Personnel Development
4.7.1902	Course and Curriculum Development

Therefore, it is recommended that all expenditures recorded in "Instruction and Departmental Research" be initially assigned to 1.1.XXXX, General Academic Instruction, by HEGIS discipline, or to 1.2.XXXX, Occupational and Vocational Instruction, by HEGIS discipline.

Step 5: Display current funds expenditures by subprogram within the Program Classification Structure. (See Table 4.)

It is recommended that current funds expenditures be displayed by PCS subprogram when the account crossover is complete. This table will document how the accounting data are lodged in the PCS before performing any special studies. The results of the special studies recommended in Chapter IV may cause a significant shift of dollars among the activity centers.

TABLE 4

CURRENT FUNDS EXPENDITURES DISPLAYED BY PCS SUBPROGRAM

1.0	Instruction	
1.1	General Academic Instruction	$1,558,237
1.2	Occupational & Vocational Instruction	
1.3	Special Session Instruction	
1.4	Extension Instruction for Credit	95,663
2.0	Organized Research	
2.1	Institutes & Research Centers	62,549
2.2	Individual or Project Research	90,415
3.0	Public Service	
3.1	Community Education	13,045
3.2	Community Service	9,270
3.3	Cooperative Extension Service	
3.4	Patient Services	
3.5	Specialized Training Programs	
4.0	Academic Support	
4.1	Libraries	236,149
4.2	Museums & Galleries	35,306
4.3	Audio/Visual Services	
4.4	Computing Support	76,243
4.5	Ancillary Support (excl. Hospitals)	
4.6	Academic Administration and Personnel Development	251,119
4.7	Course and Curriculum Development	
5.0	Student Service	
5.1.7100	Student Development	128,285
5.1.7200	Intercollegiate Athletics	315,890
5.2	Supplementary Educational Services	60,100
5.3	Counseling and Career Guidance	47,560
5.4	Financial Aid Administration	32,290
5.5	Student Support	799,910
5.6	Student Admissions and Records	68,303

TABLE 4 (Continued)

6.0	Institutional Support		
6.1	Executive Management		$ 184,351
6.2	Fiscal Operations		52,941
6.3	General Administrative Services		162,016
6.4	Logistical Services		104,051
6.5	Physical Plant Operations		285,044
6.6	Faculty and Staff Services		
6.7	Community Relations		75,435
6.8	Capital Cost - Buildings and Land Improvements		26,187*
6.9	Capital Cost - Equipment		13,098*
7.0	Independent Operations		
8.0	Scholarships and Fellowships		
8.1	Scholarships		233,000
8.2	Fellowships		68,000
9.0	Hospitals		
	Total Current Funds Expenditures		$5,084,457
	Transfers Out of Current Fund		
	Mandatory Transfers	$ 51,867	
	Nonmandatory Transfers		
	Total Transfers		51,867
	TOTAL EXPENDITURES AND TRANSFERS		$5,136,324

*Note: At this point in the costing process, these figures represent only the rental expense for buildings and equipment.

Transfers out of the current fund should be shown in addition to expenditure data. Subtotals are displayed for mandatory transfers (transfers made to fulfill a legal obligation, for example, debt service) and nonmandatory transfers (transfers for which no obligation is involved, for example, the designation of unrestricted funds to serve as quasi-endowment funds).

The sum of expenditures and transfers should reconcile with the institution's current funds transactions.

Step 6: Disaggregate total expenditures into the following objects of expenditure: instruction/research/public service personnel compensation, administrative/support personnel compensation, other staff compensation, supplies and services expenditures, capital expenditures, and scholarships and fellowships.

There are two alternative procedures for this step:

1. Perform the crossover procedure several times, once for each object of expenditure.

2. During the initial crossover, assign a digit of the PCS code to serve as the object code. For example, the ninth currently unassigned digit of the PCS code could be used to identify the object of expenditure.

The institutions participating in the PCS pilot test found the first alternative to be the more feasible, given the existing software constraints.

Following is a set of definitions for each of the object categories. Any expenditure item reported in Table 4 must be included in one of these categories.

> Instruction/Research/Public Service Personnel Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel (as classified under the Fair Labor Standards Act) who have the majority (50% or more) of their activities in 1.0, 2.0, and 3.0 of the PCS. Fringe benefits are all benefits provided a particular group of personnel, regardless of whether the benefits or equivalent cash options are available to all personnel. Typical fringe benefits include:
>
> > Social Security: If covered by Social Security, include appropriate FICA tax. If covered by an alternative plan, such as Colorado's PERA, include the appropriate payments. (Definition applies to all types of employees.)

Retirement: Include all contributions made to a retirement fund, such as TIAA/CREF, regardless of vesting requirements.

Medical Insurance: Include payments made to provide medical insurance to the employee(s).

Life Insurance: Include payments made to provide life insurance to the employee(s).

Guaranteed Disability Income Protection: Include contributions, through insurance or otherwise, for prolonged disability income payments, providing such payments do not arise from the accumulation of unused annual sick leave benefits.

Unemployment Compensation: Include payments to be made under the Unemployment Compensation law.

Workmen's Compensation: Include payments to be made under Workmen's Compensation laws.

Other benefits in kind with cash options: Include personal benefits in kind with cash options. Included in this category are tuition and housing benefits (for example, tuition waivers). Benefits of a professional nature (such as convention travel, membership fees, grading assistance, faculty clubs, and so forth), should not be included as fringe benefits; these items should be considered as supplies and services.

Administrative/Support Personnel Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel who have the majority (more than 50%) of their activities in 4.0, 5.0, 6.0, and 9.0 of the modified PCS.

Other Staff Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all nonexempt personnel.

All compensation and fringe benefits should be crossed over directly to the academic department or organizational unit to which the individual is assigned. During the CFP pilot test it was found that some institutions do not charge all fringe benefits directly to the organizational units, but rather pool certain fringe benefits at the institutional level. In other cases, fringe benefits such as retirement benefits were paid by a state agency for all state employees and the expenditure never flowed through the institutional accounts. In such cases, a loading factor must be devised for each category of personnel. This procedure involves several steps:

a. Associate each kind of fringe benefit with the appropriate personnel category, that is, instruction/research/public service personnel, administrative/support personnel, and other staff. For example, social security is applicable to all employees while retirement benefits typically are restricted to exempt personnel.

b. Assign a portion of each kind of fringe benefit to the appropriate personnel category. In some instances the institutional object codes can be used to make this assignment. If this is not possible, the assignment should be based on total salaries.

c. Calculate an average fringe benefits percentage for each category of personnel across the entire institution by dividing gross salaries by fringe benefits assigned to each personnel category (Table 5).

TABLE 5

FRINGE BENEFITS PERCENTAGES CALCULATED FOR THE TOTAL INSTITUTION

Personnel Category	Fringe Benefits	Gross Salaries	Fringe Benefits Percentage
Instruction/Research/Public Service	$ 51,840	$432,000	12%
Administrative/Support	20,440	146,000	14%
Other Staff	21,330	237,000	9%

TABLE 6

FRINGE BENEFITS PERCENTAGES APPLIED TO THE HISTORY DEPARTMENT

Personnel Category	Gross Salary	Fringe Benefits Percentage	Fringe Benefits	Total Compensation
Instruction/Research/Public Service	$52,600	12%	$ 6,312	$ 58,912
Administrative/Support	-0-	14%	-0-	-0-
Other Staff	14,180	9%	1,276	15,456

d. Multiply the appropriate fringe benefits percentage times the gross salaries for each personnel category crossed over to each organizational unit (Table 6).

e. Sum the gross salaries and fringe benefits for each personnel category within each organizational unit to arrive at total compensation (Table 6).

Supplies and Services Expenditures: This broad category of expenditures includes all types of current funds expenditures except compensation, capital expenditures, and scholarships and fellowships. A stated purpose of the Information Exchange Procedures project is to calculate direct costs and unit direct costs. To achieve comparable direct cost data, a clear distinction must be made between those expenditures that flow directly to all activity centers and those that are assigned initially to a support program (designated as 4.0, 5.0, and 6.0 in the PCS) and later are allocated back to the primary programs. Table 7 illustrates this distinction. If an institution is developing its cost data solely for internal purposes and does not intend to exchange its cost data with another institution, it need not make the recommended adjustments for direct charges.

TABLE 7

ASSIGNMENT OF SUPPLIES AND SERVICES TO THE PROGRAM CLASSIFICATION STRUCTURE*

Type of Expenditure	Assigned to All Activity Centers	Restricted to the Specified Activity Center
Supplies	X	
Communications	X	
Travel	X	
Other Contractual Services	X	
Noncapital Equipment	X	
Library Services		4.1
Audio/Visual Services		4.3
Academic Computing Services		4.4
Administrative Data Processing		6.3.8160
Purchasing and Storage of Materials		6.4.8240
Transportation Services		6.4.8260
Utilities		6.5.8130
Building Maintenance		6.5.8320
Grounds Maintenance		6.5.8330
Custodial Services		6.5.8340
Building Rental		6.8
Equipment Rental		6.9

*This table was developed specifically for the purposes of information exchange.

Supplies and services that may be assigned directly to any activity center include only the following items of expenditure:

Supplies: Consumable instructional, research, and office supplies and materials.

Communications: Telephone, telegraph, postal, printing, binding, and reproduction services.

Travel: Transportation, food, lodging, and miscellaneous expenses reimbursed to an employee when representing or conducting business for the institution.

Other Contractual Services: All other services procured from outside sources that can be directly identified with a particular activity center, for example, consulting services.

Noncapital Equipment: Those items of property that have an acquisition cost of less than $500 or an expected service life of less than two years.

All other kinds of supplies and services should be crossed over directly to the appropriate activity centers within PCS programs 4.0, 5.0, and 6.0.

Capital Assets Expenditures: Includes current operating funds expended for land, improvements to land, buildings, additions to buildings, and equipment with an acquisition cost of $500 or more and an expected life that exceeds two years. For the account crossover, capital expenditures should be reported by those organizational units charged with the expenditures in the institutional accounts.

Scholarships and Fellowships: Includes all grants to students awarded by and/or administered through the institution. This aid can be federally, state, locally, privately, or institutionally derived. All expenditures for scholarships and fellowships flowing through the current operating funds should be crossed over to one of the following activity centers:

8.1 Scholarships (grants awarded to undergraduate students)
8.2 Fellowships (grants awarded to graduate students)

Step 7: Add to the expenditures the cost of any resources used by the institution but not recorded in the institution's accounting system.

These costs can fall into one of several categories:

Expenditures Made by Another State Agency: Fringe benefits were illustrated previously. Other examples are a state purchasing agency or a state transportation pool.

Expenditures Made by a Central Administration (if the institution is part of a statewide system): Any services provided by a central administrative function must be allocated to individual campuses before direct costs are calculated. This is especially important if the direct costs are to be compared with those from other schools. If an allocation is made, the parameter used should be the total expenditures associated with each campus.

Contributed Services: The value of contributed services is the full fair market salary of the individual less any actual compensation received. This adjustment is necessary for those institutions where faculty receive less than full compensation in order to represent the total resources used by the institution. It is left up to the individual institution to judge the materiality of this adjustment.

Capital Costs of Buildings and Equipment: The capital costs of buildings and equipment will not be included as a part of total direct costs. These will be added in as separate cost elements after total direct costs are calculated but before support cost allocations are made.

Step 8: Reconcile total direct costs to current operating expenditures.

Total direct costs are defined as the summation of:

- instruction/research/public service personnel compensation,
- administrative/support personnel compensation,
- other staff compensation, and
- supplies and services expenditures

which previously have been assigned to PCS activity centers residing in 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, and 9.0. Specifically excluded from total direct costs are all capital assets expenditures and expenditures assigned to the following activity centers:

- Capital Cost for Buildings and Land Improvements (6.8)
- Capital Cost for Equipment (6.9)
- Independent Operations (7.0)
- Scholarships and Fellowships (8.0).

Table 8 illustrates a reconciliation statement of total direct costs to total expenditures. Each direct cost category should equal the total of the objects of expenditures previously assigned to activity centers. Total expenditures displayed in Table 4 and Table 8 should be identical.

TABLE 8

RECONCILIATION OF TOTAL DIRECT COSTS TO TOTAL EXPENDITURES

Total Instruction/Research Public Service Compensation	$1,552,295	
Total Administrative/Support Compensation	862,328	
Total Other Staff Compensation	753,748	
Total Supplies and Services Expenditures	1,117,264	
Total Direct Costs		$4,285,635
Add:		
Current Expenditures for Capital Assets	458,537	
6.8 Capital Cost - Buildings and Land Improvements	26,187	
6.9 Capital Cost - Equipment	13,098	
7.0 Independent Operations	-	
8.0 Scholarships and Fellowships	301,000	
Subtotal		798,822
Delete:		
Contributed Services[1]		
Fringe Benefits[2]		
Subtotal		(-)
Total Expenditures		$5,084,457

[1] Contributed services by doctors teaching on the Medical School staff.

[2] Fringe Benefits expenditures paid from a state retirement fund.

Note that any additional costs not recorded in the institution's accounting system, but recognized as costs for the purposes of this manual, have been listed as individual reconcilitg items. Contributed services and additional fringe benefits paid by a state agency are listed in Table 8.

CHAPTER III

SECTION C - QUESTIONS ABOUT THE ACCOUNT CROSSOVER

The following are answers to typical questions asked of the NCHEMS staff during implementation of the crossover procedures.

1. Question: How should an academic department that encompasses more than one HEGIS discipline be coded? For example, what code should be assigned to the Department of Physiology and Biophysics?

   Answer: A judgment needs to be made as to what is the primary intent of the operating unit. In the example, if Physiology HEGIS code 0410) uses 90% of the department's resources while Biophysics (HEGIS code 0415) accounts for only 10%, the entire department should be coded 1.1.0410.

2. Question: What code should be assigned to the college administrative unit that supports many disciplines, for example, the Graduate College?

   Answer: The management and administrative activities for collective disciplines or departments should be coded at a higher level of aggregation within subprogram 4.6, Academic Administration and Personnel Development. In the case of the Graduate College, the appropriate PCS code is 4.6.0000.

3. Question: What code should be assigned to academic units that do not have a unique HEGIS discipline code, for example, Pediatrics?

   Answer: Institutions should feel free to augment the HEGIS Taxonomy coding for internal purposes but must aggregate such augmentations for exchange purposes until such time as additional codes are provided in the HEGIS Taxonomy. Pediatrics should be coded 1226, the next unassigned code within the Health Professions.

4. Question: How should expenditures for property and general institutional liability insurance be coded?

   Answer: The PCS does not provide a unique code for these expenditures. Therefore, the first unassigned code under Physical Plant Operations (6.5.8390) could be used to record these expenditures.

5. Question: Multicampus operations generally have a central administrative function incurring expenditures in support of activities for more than one campus. The PCS is designed for a single campus and, therefore, does not accommodate the central administration activity. For the crossover to the PCS, how should central administrative activities be coded?

   Answer: Central administrative expenditures should be coded as if they were a separate campus, with the functional categories identical to those used in the PCS. Most of the expenditures will fall in program 6.0, Institutional Support, although there may be academic units reporting directly to the central administration (for example, university-wide extension divisions, centers, and institutes). For information exchange purposes, the central administrative expenditures (by function) should be allocated to the individual campuses on the basis of total expenditures associated with each campus.

6. Question: Are expenditures for library books considered capital expenditures and thus amortized or depreciated over a specified number of years or are they considered current operating expenditures of the library?

   Answer: For the purposes of this cost study, book expenditures should be considered a current expenditure and thus, a direct cost of the library under supplies and services.

7. Question: How should expenditures for the operation of the Placement Office be coded?

   Answer: The PCS indicates that placement services should be considered a part of the Counseling and Career Guidance and should be coded 5.3.

8. Question: How are inventories and cost of goods sold handled in those activity centers typically considered to be auxiliary enterprises, for example, food services or a book store?

Answer: An attempt should be made to segregate the ending inventories and the current year's cost of goods sold from the operational costs of an activity center. For example, a unique PCS code (5.5.7311) should be assigned to Food Services--Cost of Goods Sold/Inventory and only the costs of operating the food service should be assigned to 5.5.7310. If this were not done, an inordinate amount of overhead costs would be allocated to such activity centers.

9. Question: How are loans to students handled in the account crossover?

Answer: Student loans represent a conversion of loan funds assets (not current funds expenditures) and therefore would be excluded from the account crossover.

10. Question: How should expenditures for an association of staff (nonexempt) personnel be coded?

Answer: If the staff association functions primarily as an advisory body to executive management, it should be coded 6.1.8120. If it functions more as a social organization, it should be assigned the first unassigned code under Faculty and Staff Services (6.6.7390).

11. Question: What code should be assigned to expenditures for student commencement?

Answer: The PCS indicates that commencement exercises should be considered a part of Community Relations and, therefore, should be coded 6.7.8180.

12. Question: How are transfers out of the current funds into the endowment fund handled in the account crossover?

Answer: Transfers out of the current funds, both mandatory and nonmandatory, should not be included in the account crossover.

13. Question: What code should be assigned to expenditures for student orientation?

Answer: Student orientation typically is considered a student service and as such should be assigned to 5.1.7100, Student Development.

14. Question: How should compensation paid to the dean of the evening college and his associated support staff be coded?

Answer: All administrative deans are considered a part of Academic Administration and Personnel Development. The dean of the evening college cannot be identified with any particular discipline and, therefore, his related expenditures should be coded 4.6.0000.

15. Question: Is the Vice-President for Business considered part of the Executive Management subprogram or part of the Fiscal Operations subprogram?

Answer: The Vice-President for Business and his associated support staff should be considered a part of the Executive Management subprogram and as such should be coded 6.1.8110.

16. Question: What code should be assigned to expenditures for the college chaplain?

Answer: Religious activities normally are considered part of the Student Development program category and as such should be coded 5.1.7100.

17. Question: If bad debts are written off during the fiscal year, how is the expenditure item to be handled?

Answer: Bad debts write-offs typically are handled through the controller's office and, therefore, should be assigned the first unassigned code under Fiscal Operations (6.2.8190). It should be remembered that the loan funds are not subject to the account crossover and, therefore, a major portion of the bad debts expense will not be reflected in any PCS activity center.

18. Question: If an institution has only one computer center, providing services to both the academic departments and to the administration, how should its activities be coded?

Answer: In the case of a centralized computer center serving both academic and administrative needs, it is recommended that the institution attempt to distinguish between the resources required for supporting the administrative computing activities (6.3.8160) and those required for academic computer support activities (4.4). If this separation cannot be made, assign the entire account to 6.3.8160.

19. Question: How should grants that support training programs, such as Upward Bound or Outward Bound, be classified?

Answer: CFP has created a specific activity center, Specialized Training Programs (3.5), to handle activities that offer noncredit training for a specified purpose.

20. Question: What code should be assigned to rental expenditures for equipment and buildings that are not charged to the organizational unit?

Answer: CFP has created two activity centers for centrally pooled rental expenditures: 6.8, Capital Cost for Buildings and Land Improvements, and 6.9, Capital Cost for Equipment. Additional capital costs will be calculated for institutionally owned buildings and equipment in a later step in the cost finding procedures.

21. Question: What code should be assigned to expenditures for institutional membership dues and accreditation fees?

Answer: Membership dues and accreditation fees both result from the institution's interaction with the broader academic community and as such should be assigned to Community Relations (6.7.8180).

22. Question: Some institutions have their research activities incorporated as a separate legal entity typically known as a research foundation or a research institute. Are these activities to be included in the account crossover?

Answer: A determination has to be made concerning the independence of any such organization. If the parent university maintains programmatic and fiscal control over the activities in the research institute, those activities should be appropriately coded as Institutes and Research Centers (2.1.XXXX). If, on the other hand, it functions as an independent organization administrated by a separate executive board, it would not be included in the account crossover.

23. Question: What code should be assigned to the Dean of Students' Office?

Answer: If the Dean of Students devotes the majority of his effort to a particular activity center within the Student Service program, for example, Student Counseling and Career Guidance (5.3), the costs of his compensation and of his associated support staff should be assigned to 5.3 during the account crossover. If, on the other hand, he supervises several activities within the Student Service program, his costs should be assigned initially to 5.0 and later allocated to the activities he administers.

CHAPTER IV

DIRECT COST STUDIES

SECTION A - INTRODUCTION

Chapter III outlined procedures for crossing over expenditure data from the institution's accounting system into the PCS activity centers. It was recommended that all current expenditure data be grouped according to the following objects of expenditure:

.instruction/research/public service personnel compensation
.administrative/support personnel compensation
.other staff compensation
.supplies and services expenditures
.capital expenditures
.scholarships and fellowships.

Direct costs are defined as the sum of the first four of these objects of expenditure after they are assigned to an activity center either as a result of the account crossover or as a result of a direct cost study. A direct cost study is a separate survey or analysis performed on one of the object categories to gather additional information that will aid the user in assigning costs to activity centers. A typical example of a direct cost study is a faculty activity analysis.

Basically, three alternatives are available for treating the data within each of the direct cost categories.

Alternative 1: Conduct a separate survey or analysis to achieve a more accurate assignment of costs among activity centers and to gather more data to facilitate costing at a lower level of detail. These surveys or analyses are referred to as direct cost studies.

Alternative 2: Redistribute costs within a particular direct cost category on the basis of a parameter. For example, other staff compensation could be distributed on the basis of all exempt personnel compensation or on the basis of FTE exempt personnel.

Alternative 3: Perform no direct cost study and simply accept the expenditure data as crossed over from the accounting records.

Each of these alternatives is discussed in relation to each of the direct cost categories.

CHAPTER IV

SECTION B - PERSONNEL CATEGORIES

For the purposes of cost finding, personnel are divided into three categories.*

> Instruction/Research/Public Service Personnel: All personnel classified as exempt under the Fair Labor Standards Act who have a majority (50% or more) of their activities in programs 1.0, 2.0, and 3.0 of the PCS. This personnel category typically is referred to as faculty.
>
> Administration/Support Personnel: All personnel classified as exempt under the Fair Labor Standards Act who have a majority (more than 50%) of their activities in programs 4.0, 5.0, 6.0, and 9.0 of the modified PCS.
>
> Other Staff: All personnel classified as nonexempt under the Fair Labor Standards Act.

All personnel employed by the institution should be placed into one of these three categories using the definitions stated above.

---

*Only two personnel categories were used in the CFP pilot test - faculty and nonfaculty. These categories and titles were changed later to be compatible with the IEP Manual.

Two items of information are required for each personnel category.

FTE Service Months: The number of full-time equivalent service months an employee devotes to a particular activity. The FTE calculation is based upon two factors:

1. The length (in months) of the individual's appointment or contract for the current fiscal year.
2. The assigned workload of the individual in relation to what the institution considers a full-time workload.

Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of an employee.

Procedures for distributing an employee's FTE service months and compensation to the appropriate activity centers are discussed in the following sections. The distribution of FTE service months should be consistent with the distribution of an employee's compensation.

CHAPTER IV

SECTION C - INSTRUCTION/RESEARCH/PUBLIC SERVICE PERSONNEL (FACULTY)

There is little evidence that accounting data and personnel records can adequately reflect the full range of a faculty member's activities across the Program Classification Structure. An additional data source is needed if a faculty member's time is to be correctly associated with the appropriate activity centers. The CFP Task Force considered three alternative procedures for distributing faculty compensation and FTE service months to the PCS activity centers.

Alternative 1: Conduct an historical analysis of faculty activities in which the data are provided by the departmental chairman for each faculty member and reviewed by the appropriate academic dean or the director of institutional research.

Alternative 2: Conduct an historical analysis of faculty activities in which the data are provided by individual faculty members and verified by the departmental chairman.

Alternative 3: Accept the accounting data and distribute faculty dollars to course level via a faculty parameter, for example, faculty contact hours.

While Alternative 3 is the most straightforward and the easiest to implement, it fails to recognize all components of instructional unit costs. The cost of the faculty resource and the faculty/student ratio are the two most important variables determining instructional unit costs. The use of a parameter such as faculty contact hours to distribute compensation to course level is inadvisable because it results in a calculated unit cost that varies in direct proportion to section size. It ignores the differential cost of the faculty resource. For this reason, the Task Force believes Alternative 3 is an unacceptable costing procedure for most institutions, given current accounting practices.

In recommending a separate survey of faculty activities, the Task Force set forth the following guidelines:

- The survey instrument should reflect an historical account of each faculty member's activities.

- All faculty activities should be mappable directly to activity centers within the PCS.

- The survey instrument should allow each institution to designate which faculty activities are to be costed.

- The survey instrument may be completed by the departmental chairman on behalf of each faculty member or by the faculty member himself to be later verified by his departmental chairman.

- Ideally, the survey instrument should be administered for each academic term (including special sessions) within the fiscal year. As a minimum requirement, the survey instrument should be administered at least once during the fiscal year.

Inherent in collecting data for just one term is the assumption that the activities for one term are similar to activities during the entire year, and that the proportion of time allocated to each activity center by instruction/research/public service personnel is approximately constant throughout the length of appointment. The IEP pilot test will explore further the advisability of using one term as a proxy for the entire year. Institutions should use actual term-by-term faculty activity data whenever feasible.

Faculty activity data may be obtained from the departmental chairman or from the individual faculty member through the use of two different survey instruments. In either case the departmental chairman supervises the administration of the faculty activity survey. He decides which faculty activities are to be costed and to which activity centers those costs are assigned. In one case, he supplies the information in consultation with the faculty member or from his own knowledge of the faculty member's activities; in the other case, the individual faculty member completes the form which subsequently is reviewed by the departmental chairman.

Alternative 1: Departmental Chairman's Report of Faculty Activities. The departmental chairman is primarily responsible for collecting the faculty activity information. If the departmental chairman elects to furnish the activity information, he should complete a Departmental Chairman's Report of Faculty Activities for each individual in the department. (The survey form and the accompanying instructions are included in Appendix D.)

The departmental chairman should complete this form based upon his knowledge of each faculty member's actual activities. In some cases this record may differ from those activities formally assigned to the faculty member at the beginning of the term or the contract period. However, for costing purposes, the task force feels it is important to record the actual activities of faculty members during the term.

The chairman assigns percentages to each activity performed by the faculty member. Fiscal reference codes link the faculty member's activities directly to the budgetary accounts from which the faculty member is paid. For example, if a portion of the faculty member's salary is paid through a research contract, activities related to the research contract can be identified specifically only through use of the fiscal reference code.

Figure 8 is an example of a Departmental Chairman's Report of Faculty Activities for a faculty member in the Botany department. The information on this form will be used to illustrate procedures recommended for costing faculty activities. The individual illustrated, Carl Peterson,

FIGURE 8

DEPARTMENTAL CHAIRMAN'S REPORT OF FACULTY ACTIVITIES

NAME *Carl Peterson* I.D. OR SOCIAL SECURITY NO. *516-40-1070*

FISCAL REFERENCE BLOCK

ORG. UNIT	LENGTH OF CONTRACT	FTE (TERM)	BUDGETARY ACCOUNT NAME	BUDGETARY ACCOUNT NUMBER	SALARY DOLLARS	PCS CODE	REF. CODE
Botany	*9 months*	*1.0*	*Admin.* *Instruct.*	*1041121* *1841121*	*$3,300* *$3,300*	*460506* *110506*	*I* *A*

1A. INSTRUCTIONAL ACTIVITIES - CREDIT AND NON-CREDIT COURSES

PCS Do Not Write In This Column (a)	Organizational Unit (b)	Course and Section Number (c)	Section Enrollment (d)	Code R = Remedial E = Extension C = Community Ed. (e)	Credit Hours (f)	Formal Contact Hours (g)	Percentage of Workload (h)	Reference Code (i)
	Botany	*458-10*	*52*		*3*	*3*	*20%*	*A*
	Botany	*458-13*	*30*		*3*	*3*	*20%*	*A*
	Botany	*459-10*	*28*		*3*	*3*	*20%*	*A*
	Botany	*548-10*	*1*		*3*		*2%*	*A*

1B. INSTRUCTIONAL ACTIVITIES NOT RELATED TO COURSES

Activity Description	% of Workload	Reference Code
Advising Students	*8%*	*A*
Course Development	*5%*	*A*

2. ORGANIZED RESEARCH ACTIVITIES

Activity Description	% of Workload	Reference Code

3. PUBLIC SERVICE ACTIVITIES

Activity Description	% of Workload	Reference Code

4. ADMINISTRATIVE AND COMMITTEE ACTIVITIES

Activity Description	% of Workload	Reference Code
Ass't Dept. Chairman	*15%*	*I*
Dean's Committee	*5%*	*I*

5. STUDENT SERVICE ACTIVITIES

Activity Description	% of Workload	Reference Code
Career Counseling	*5%*	*I*

has a 50% appointment to the instruction program and a 50% appointment as an assistant departmental chairman. Note that the institutional accounting system identifies departmental administration as a separate account. In the example, the survey instrument was administered for the fall semester. The survey should be administered for each academic term within the fiscal year; the combined data from all surveys then are used to distribute faculty service months and compensation to appropriate activity centers.

Step 1: Assign percentages to each activity performed by the individual faculty member.

The departmental chairman should specify percentages of time each faculty member devotes to each activity center. Activities may be preprinted on the form by a person with knowledge of the faculty member's activities; the departmental chairman then adds activities that do not appear on the preprinted form and assigns percentages to all activities listed. The percentages on each form should total 100%.

Step 2: Determine the PCS code to be attached to each line entry, thereby designating the appropriate activity center for each faculty activity.

Table 9 specifies the mapping conventions required to transfer the hours as reported by the faculty member into the PCS. The mapping conventions are identical, regardless of which form is used to collect the faculty activity information. These mapping conventions were developed from NCHEMS's

TABLE 9

FACULTY ACTIVITY/PCS MAPPING CONVENTIONS

DEPARTMENTAL CHAIRMAN FORM	INDIVIDUAL FACULTY ACTIVITY FORM	ACTIVITIES	PCS CODE	COMMENTS
1A - Instructional Activities - Credit and Noncredit Courses	A.1 Scheduled Teaching	General Academic Instruction	1.1.xxxx.xx	HEGIS disciplines (xxxx) are determined from PCS code column in the Fiscal Reference Block.
		Occupational-Vocational Instruction	1.2.xxxx.xx	
		Special Session Instruction	1.3.xxxx.xx	Course levels are determined by the institutional course number. The following codes are used to indicate course level: 20 - Lower Division 30 - Upper Division 50 - Graduate
		Extension Instruction (for credit)	1.4.xxxx.xx	
		Community Education (noncredit)	3.1.xxxx.	
		Remedial Instruction (noncredit)	5.2	
1B - Instructional Activities Not Related to Course	A.2 Unscheduled Teaching	Thesis Advising or Committee Participation	1.1.xxxx.xx	HEGIS disciplines (xxxx) are determined from PCS code column in the Fiscal Reference Block.
	A.3 Academic Program Advising	Academic Program Advising	1.1.xxxx.xx 1.2.xxxx.xx	Course level designators should be made in proportion to course level designations in 1A. Use the code (1.1 or 1.2) to reflect the type of program in which the majority of students are advised.
	A.4 Course and Curriculum Research and Development	Course and Curriculum Development	4.7.xxxx.xx	
	B.1 Specific Research Projects	Departmental Research	1.1.xxxx.xx	Only include activities listed under B.1 that are considered to be departmental research.
2 - Organized Research Activities	B.1 Specific Projects	Specific Research Projects	2.2.xxxx.	HEGIS disciplines (xxxx) are determined from PCS code column in the Fiscal Reference Block.
	B.2 General Scholarship and Professional Development	Institutes and Research Centers	2.1.xxxx.xx	

TABLE 9 (Continued)

FACULTY ACTIVITY/PCS MAPPING CONVENTIONS

DEPARTMENTAL CHAIRMAN FORM	INDIVIDUAL FACULTY ACTIVITY FORM	ACTIVITIES	PCS CODE	COMMENTS
3 - Public Service Activities	D Public Service Activities	Community Service	3.2.xxxx.	
		Agriculture and Urban Extension	3.3.xxxx.	
		Patient Services	3.4.xxxx.	
		Training Grants	3.5.xxxx.	
4 - Administrative and Committee Activities	C.2 Administrative Duties	Departmental Administration and Committee Work	4.6.xxxx.	Administrative activities contained within the academic department. HEGIS disciplines (xxxx) are determined from PCS code column in the Fiscal Reference Block.
	C.3 Committee Participation	School or College Administration and Committee Work	4.6.xx	Administrative activities that relate to more than one department.
5 - Student Service Activities	C.1 Student-Oriented Service	Social and Cultural Student Activities	5.1.7100	
		Intercollegiate Athletics	5.1.7200	
		Personal Counseling and Career Guidance	5.3.	

experience with the Faculty Activity Analysis pilot test institutions. Note that only a subset of the PCS codes can be used legitimately. This restricted coding scheme substantially reduces the analysis time and sacrifices only a small amount of added information.

Step 3: Multiply the percentages assigned in Step 1 by each individual's total FTE service months.

Total FTE service months can be determined by examining the length of contract block and the FTE block at the top of the form (Figure 8). Carl Peterson's workload is 1.0 FTE and his length of contract is 9 months. Therefore, his total FTE service months equals 9.0 for the academic year. Since this form reflects only one-half of the service months, 4.5 service months are distributed to the appropriate PCS activity centers. (See Table 10.)

Step 4: Multiply the percentages assigned in Step 1 by each individual's salary as reported in the fiscal reference block.

This step weights an individual's effort (as approximated by the time devoted to a particular activity) by his rate of compensation. An individual's rate of compensation is measured by the gross salary he receives for the academic term.

TABLE 10

PERCENT OF WORKLOAD AND EQUIVALENT SERVICE MONTHS

Name Carl Peterson I.D. or Social Security No. 515-40-1670

Faculty Activity	Percent of Workload	PCS Code	Service Months
Instructional Activity			
Upper Division	60%	1.1.0402.30	2.7
Graduate	2%	1.1.0402.50	.1
Instructional Activity Not Related to Course Work			
Advising Students	8%	1.1.0402.30	.4
Course Development	5%	4.7.0402	.2
Administrative and Committee Meetings			
Assistant Dept. Chairman	15%	4.6.0402	.7
Dean's Committee	5%	4.6.0402	.2
Student Services Activities			
Career Counseling	5%	5.3	.2
TOTALS	100%		4.5

In the example (Figure 8), the faculty member's salary ($6,600) was reported for the fall semester--the same time period covered by the survey instrument. These dollars then were distributed across the percentages assigned in Step 1 to arrive at a weighted faculty effort (Table 11, column headed "Faculty Salary Dollars"). If faculty activity data are collected for more than one academic term and the term lengths vary, the faculty member's academic term salary also is an appropriate weighting factor to account for the different term lengths. For example, data collected during a special session (term length = 4 weeks) should be given a smaller weighting than data collected during a regular academic term (term length = 16 weeks).

TABLE 11

PERCENT OF WORKLOAD WEIGHTED BY FACULTY SALARY DOLLARS

Name Carl Peterson I.D. or Social Security No. 151-40-1670

PCS Code	Percent of Workload	Faculty Salary Dollars
1.1.0402.30	68%	$4,488
1.1.0402.50	2%	132
4.6.0402	20%	1,320
4.7.0402	5%	330
5.3	5%	330
TOTALS	100%	$6,600

Step 5: Accumulate by activity center all faculty salary dollars paid from each departmental budget.

At this point in the faculty activity procedures, all individual summary data are aggregated into departmental totals. In Table 12 the faculty salary dollars reported in Figure 8 have been merged with all other faculty salaries paid from the Botany departmental budget. For example, the $4,488 coded 1.1.0402.30 in Table 11 is included in the $8,342 departmental total with the identical code in Table 12. If faculty activity data are collected for more than one academic term during the fiscal year, individual summary data from all academic terms should be merged during this step.*

Step 6: Convert the dollars accumulated in Step 5 to percentages for each PCS code within each department.

This step creates a series of percentages, one for each PCS code associated with a department. In Table 12 each line entry was converted to a percentage by dividing the faculty salary dollars for each PCS code by the total faculty salary dollars within the department.

Step 7: Aggregate all faculty compensation assigned to the department during the account crossover.

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*Special session data may be merged with academic year data at this point in the costing process or they may be analyzed separately. See page 97 for a more thorough discussion of special session data.

TABLE 12

INDIVIDUAL RECORDS MERGED INTO DEPARTMENTAL TOTALS

DEPARTMENT: BOTANY					
PCS Code	Fall Term Faculty Salary Dollars	Spring Term Faculty Salary Dollars	Summer Term Faculty Salary Dollars	Total Faculty Salary Dollars	Percent of Total Dollars
1.1.0402.20	$ 5,280	$ 3,681	$ 1,432*	$10,393	14.0%
1.1.0402.30	8,342	6,241	1,896*	16,479	22.2%
1.1.0402.50	6,939	5,873	1,738*	14,550	19.6%
2.2.0402	5,381	4,906	4,040	14,327	19.3%
4.6.0402	3,462	3,486	1,737	8,685	11.7%
4.7.0402	3,698	3,678	938	8,314	11.2%
5.1.7110	594	--	--	594	.8%
5.3	431	460	--	891	1.2%
TOTALS	$34,127	$28,325	$11,781	$74,233	100.0%

*In this example, special session instruction has been merged with general academic instruction.

Assume the following amounts representing faculty compensation were assigned to the Botany department during the account crossover:

General Academic Instruction	1.1.0402	$54,113
Special Session Instruction	1.3.0402	6,812
Organized Research	2.2.0402	12,600
Academic Administration	4.6.0402	6,600
TOTAL		$80,125

Note that the total recorded in the accounting system ($80,125) differs from the total of the individual faculty activity reports ($74,233 from Table 12). This difference can be explained by charges made to the departmental budget that do not necessarily represent faculty salaries (for example, fringe benefits, payments to faculty members on sabbatical leave and visiting lecturers). Any large difference between these two totals would warrant further investigation.*

Step 8: Distribute the total compensation; determined in Step 7, by multiplying that total by the series of departmental percentages determined in Step 6. (See Figure 9.)

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*Any faculty dollars assigned a HEGIS discipline code in the account crossover can be distributed on the basis of the faculty activity analysis percentages by including those dollars in this total. Examples might include expenditures for departmental libraries and departmental museums and galleries. This procedure would eliminate a series of departmental allocations in the full costing procedures.

This step uses the faculty activity percentages from the individual faculty activity reports to distribute total fiscal year faculty compensation as recorded in the accounting system. The total dollars devoted to faculty compensation remain constant; only the distribution of dollars to activity centers varies.

FIGURE 9

DISTRIBUTION OF FACULTY COMPENSATION

TOTAL FACULTY COMPENSATION AT CROSSOVER	DISTRIBUTED FACULTY COMPENSATION			
$80,125 →	14.0%	$11,191	to	1.1.0402.20
	22.2%	17,906	to	1.1.0402.30
	19.6%	15,668	to	1.1.0402.50
	19.3%	15,430	to	2.2.0402
	11.7%	9,380	to	4.6.0402
	11.2%	8,953	to	4.7.0402
	.8%	675	to	5.1.7110
	1.2%	922	to	5.3

Alternative 2: The Individual Faculty Activity Analysis

The NCHEMS Faculty Activity Analysis (FAA) Task Force has designed a survey instrument called the Faculty Activity and Outcome Survey. This survey instrument provides CFP with the data-gathering capability for determining and analyzing the faculty resources committed to various institutional activities. FAA has defined the faculty activities and established procedures for conducting the study; CFP provides the conventions for costing faculty activities. See the Faculty Activity Analysis Procedures Manual (Manning and Romney, 1973) for a complete description of the Faculty Activity and Outcome Survey and the procedures recommended for using it. This particular survey instrument is not required for analyzing faculty activities, but it is important that any individual faculty activity form used to generate information for IEP contain a set of activities similar to those on the NCHEMS FAA form. It also is necessary to map these activities to the PCS according to the conventions displayed in Table 9. See Appendix D for a sample of the NCHEMS FAA survey form and accompanying instructions.

Figure 10 illustrates an FAA survey instrument completed by a faculty member in the Botany department. The information on this form is similar to that on the Departmental Chairman's Report of Faculty Activities in Figure 8, but the faculty member has recorded more activities and has assigned his time in hours rather than percentages to the expanded set of activities. This may result in a distribution of faculty service months and compensation to the PCS activity centers slightly different from that obtained using the Departmental Chairman's Report of Faculty

Activities. This difference illustrates why the institution should use the same form for all departments to collect faculty activity information.

The survey instrument should be administered every term if possible. Each faculty member should complete the form by recording the average hours per week spent in the various types of activities during the academic term. The departmental chairman completes the fiscal reference column (far right-hand column of the form) as he reviews the faculty member's activities. During the chairman's review the activities are linked to the budgetary accounts supporting them. If the departmental chairman decides certain activities are outside the realm of a faculty member's assignment and should not be costed, he indicates this with the appropriate code. For example, the last activity entered on the survey form (Figure 10), Consulting, has been coded "S" which means that it is supportive of the mission of the institution but is not compensated. The CFP project does not use the outcomes dimension on the FAA survey instrument, although individual institutions may wish to collect this data for internal analysis.

FIGURE 10
FACULTY ACTIVITY AND OUTCOME SURVEY

NAME Carl Peterson I.D. OR SOCIAL SECURITY NO. 515-40-1670

FOR INSTITUTIONAL USE

ADDITIONAL INFORMATION BLOCK									FISCAL REFERENCE BLOCK							
INSTITUTION	TERM	TENURE	YEARS AT INSTITUTION	YEARS IN RANK	PRINCIPAL DEPARTMENT	ADMINISTRATION RANK	FACULTY RANK	LENGTH OF APPOINTMENT	REF. COL.	FTE (TERM)	ACCOUNT TITLE	DEPARTMENT/ UNIT	PCS CODE	ACCOUNT NUMBER	SALARY DOLLARS (TERM)
State U.	Fall 1973	Yes	15	8	Botany	Asst Dept Chm	Prof.	9 months	I	.5	Admin.	Botany	460402	1041121	$ 3300
									A	.5	Instr.	Botany	110402	1541121	3300
										1.0	Totals				$ 6600

INITIAL ESTIMATE OF YOUR OVERALL AVERAGE HOURS PER WEEK: 65

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SECTION A: TEACHING ACTIVITIES										PERCENTAGE DISTRIBUTION TO INSTITUTIONAL OUTCOMES				
A.1 SCHEDULED TEACHING						(g) + (h) + (i) = (j)								
(a) HEGIS Do not write in this column	(b) DEPT. UNIT	(c) COURSE & SECTION #	(d) SECTION Enroll-ment	(d) SECTION Code R if Remedial E if Extension	(e) CREDIT HOURS	(f) METHOD OF INSTRUC-TION	(g) FORMAL CONTACT HOURS	(h) OTHER CONTACT HOURS	(i) PREPAR-ATION & ADMIN-ISTRATION	(j) AVERAGE HOURS PER WEEK	(k) STUDENT GROWTH AND DEVELOPMENT %	(l) DEVELOPMENT OF NEW KNOWLEDGE AND ART FORMS %	(m) COMMUNITY SERVICE AND DEVELOPMENT %	(n) INSEPARABLE COMBINATION OF (k) + (l) + (m) %	(o) FISCAL REFERENCE (DO NOT WRITE IN THIS COLUMN)
	Bot.	458-10	53		3	A	3	2	7.5	12.5	75	15		10	A
	Bot.	458-12	39		3	A	3	2	7.5	12.5	75	15		10	A
	Bot.	459-10	28		3	D	3	2	7.5	12.5	75	15		10	A
	Bot.	548-10	1		3	E		.5		.5	65	30		5	A
						SUBTOTAL				38.0					

	(p) LEVEL	(q) ACTIVITY DESCRIPTION						
A.2 UNSCHEDULED TEACHING	F	Discussion with Colleagues	1	100				A
	D	Work with Marginal Students	1	100				A
A.3 ACADEMIC PROGRAM ADVISING	D	Advise Students	.5	100				A
A.4 COURSE AND CURRICULUM RES. & DEVELOP.	E	Explore New Courses	.5	100				A
	F	Develop Curriculum	.5	100				A
		SUBTOTAL	3.5					

FIGURE 10 (Con't.)

ACTIVITY			(g) ACTIVITY DESCRIPTION	(j) AVERAGE HOURS PER WEEK	PERCENTAGE DISTRIBUTION TO INSTITUTIONAL OUTCOMES				
					(k) STUDENT GROWTH AND DEVELOPMENT %	(l) DEVELOPMENT OF NEW KNOWLEDGE AND ART FORMS %	(m) COMMUNITY SERVICE AND DEVELOPMENT %	(n) INSEPARABLE COMBINATION OF (k), (l) + (l) %	(o) FISCAL REFERENCE (DO NOT WRITE IN THIS COLUMN)
SECTION B: RESEARCH, SCHOLARSHIP & CREATIVE WORK ACTIVITIES	B.1 SPECIFIC PROJECTS		Writing Proposals	.5	30	70			A
			Supervising Research	.5	30	70			A
	B.2 GENERAL SCHOLARSHIP AND PROFESSIONAL DEVELOPMENT		Attending Professional Meetings	.5				100	A
			SUBTOTAL	1.5					

SECTION C: INTERNAL SERVICE ACTIVITIES	C.1 STUDENT-ORIENTED SERVICE		Recommendations	.5	100				I
			Meeting with Parents	.5				100	I
			Personal and Career Counseling	.5	100				I
		CODE LEVEL							
	C.2 ADMINISTRATIVE DUTIES	1	Administration Policies	8.0				100	I
		1	Assessing Faculty Course Loads	2.0				100	I
		1	Registration	1.0				100	I
	C.3 COMMITTEE PARTICIPATION		Planning Committee	1.5				100	I
			Dean's Advisory Committee	3.0				100	I
			SUBTOTAL	17					

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SECTION D: PUBLIC SERVICE ACTIVITIES	GENERAL PROFESSIONAL SERVICE ADVICE DIRECTED OUTSIDE THE INSTITUTION	Consulting	1.0				100	S
		SUBTOTAL	1.0					

AVERAGE HRS WEEK	61.0

Step 1: Determine the PCS code for each line entry, thereby designating the appropriate activity center for each faculty activity.

Table 9 shows the mapping conventions used to transfer into the PCS the hours reported by the faculty member. Table 13 shows how these mapping conventions are applied to the FAA data reported in Figure 10. Note that the three Botany courses numbered 458-10, 458-12, and 459.10 were coded 1.1.0402.30, General Academic Instruction/Botany/Upper Division, as were "Work with marginal students" and "Advise students." The level code associated with these activities indicates they are directed primarily at the undergraduate student and are supportive of the faculty member's undergraduate scheduled teaching activities. The Botany course numbered 548-10 is a graduate level course and, therefore, was coded 1.1.0402.50. "Discussion with Colleagues" is the only unscheduled teaching activity supportive of this graduate teaching. The rest of the PCS coding is fairly straightforward. The "Consulting" activity is not assigned to a PCS code because it is outside the faculty member's costable activities.

Step 2: Convert compensated faculty hours to percentages by activity center for each individual.

Sum faculty hours by activity center. In the example, three activities were coded 1.1.0402.30. The reported hours for each of the three activities are summed (37.5, 1.0, and .5) and the total (39.0) is entered on an

TABLE 13

REPORTED HOURS AND APPROPRIATE PCS CODES

Name Carl Peterson I.D. or Social Security No. 515-40-1670

	Faculty Activity	Reported Hours	PCS Code
A.1	Scheduled Teaching		
	Lower Division	—	
	Upper Division	37.5	1.1.0402.30
	Graduate	.5	1.1.0402.50
A.2	Unscheduled Teaching		
	Lower Division		
	Upper Division	1.0	1.1.0402.30
	Graduate	1.0	1.1.0402.50
A.3	Academic Program Advising		
	Lower Division		
	Upper Division	.5	1.1.0402.30
	Graduate		
A.4	Course and Curriculum Res. and Develop.	1.0	4.7.0402
B.1	Specific Projects	1.0	4.6.0402
B.2	General Scholarship and Professional Develop.	.5	4.6.0402
C.1	Student-Oriented Service	1.5	5.3
C.2	Administrative Duties	11.0	4.6.0402
C.3	Committee Participation	4.5	4.6.0402
D	General Professional Service/Advice Directed Outside the Institution	1.0	--
	TOTALS	61.0	

individual summary sheet (Table 14) in the column headed "Costable Hours." Likewise, the reported hours for the two activities that were coded 1.1.0402.50 are summed (.5, 1.0) and this total (1.5) is entered on the individual summary sheet. This operation is repeated for all faculty activities assigned a PCS code in the previous step. The "Costable Hours" column then is totaled and each entry is converted to a percentage of the total. Note that the total costable hours are 60 though the total reported hours were 61.

TABLE 14

COSTABLE HOURS

Name Carl Peterson   I.D. or Social Security No. 515-40-1670

PCS Code	Costable Hours	Percent of Total Costable Hours
1.1.0402.30	39.0	65.0%
1.1.0402.50	1.5	2.5%
4.6.0402	17.0	28.3%
4.7.0402	1.0	1.7%
5.3	1.5	2.5%
TOTALS	60.0	100.0%

Step 3: Multiply the percentages derived in Step 2 by each individual's total FTE service months.

Total FTE service months are determined from the length of appointment block and the FTE block at the top of the FAA form (Figure 10). Carl Peterson's workload is 1.0 FTE and his length of appointment is 9 months. Therefore, his total FTE service months equal 9.0. Since this form represents only one academic term, only 4.5 service months are distributed on the basis of this term's FAA. These service months are distributed across the percentages calculated in Step 2. Table 15 shows these calculations.

TABLE 15

COSTABLE HOURS AND EQUIVALENT SERVICE MONTHS

Name Carl Peterson I.D. or Social Security No. 515-40-1670

PCS Code	Costable Hours	Percent of Total Costable Hours	Service Months
1.1.0402.30	39.0	65.0%	2.9
1.1.0402.50	1.5	2.5%	.1
4.6.0402	17.0	28.3%	1.3
4.7.0402	1.0	1.7%	.1
5.3	1.5	2.5%	.1
TOTALS	60.0	100.0%	4.5

Step 4: Multiply the percentages derived in Step 2 by each individual's salary as reported in the fiscal reference block.

This step weights an individual's effort (as approximated by the time devoted to a particular activity) by his rate of compensation. In the example (Figure 10), the faculty member's salary ($6,600) was reported for the academic term--the same period covered by the survey instrument. These dollars then were distributed across the percentages calculated in Step 2 to arrive at a weighted faculty effort (Table 16, column headed "Faculty Salary Dollars").

TABLE 16

COSTABLE HOURS WEIGHTED BY FACULTY SALARY DOLLARS

Name Carl Peterson I.D. or Social Security No. 515-40-1670

PCS Code	Costable Hours	Percent of Total Costable Hours	Faculty Salary Dollars
1.1.0402.30	39.0	65.0%	$ 4,290
1.1.0402.50	1.5	2.5%	165
4.6.0402	17.0	28.3%	1,868
4.7.0402	1.0	1.7%	112
5.3	1.5	2.5%	165
TOTALS	60.0	100.0%	$ 6,600

Repeat Steps (5) through (8) to merge individual records into departmental totals and distribute faculty compensation based on the departmental totals.

Treatment of Special Sessions

Most institutional accounting systems cannot provide direct cost data (as defined by CFP) for special session instruction (PCS subprogram 1.3). Typically the accounting records include only the additional costs of operating a special session, for example, faculty compensation for the courses offered. The costs associated with faculty hired on twelve month contracts, support staff, and supplies and services usually are not reflected in the special session accounts.

Three alternative procedures have been considered in costing special sessions:

> Alternative 1: Cross over to subprogram 1.3 all expenditures (except chargebacks, capital expenditures, and so forth) recorded in the accounting system for special sessions. Make no attempt to assign any additional direct costs from subprograms 1.1 and 1.2 to 1.3, nor to allocate any support costs to 1.3 in the full costing procedures. The costs attributed to subprogram 1.3 would be labled "incremental costs."
>
> Alternative 2: Cross over from the accounting system any dollars that can be attributed to special sessions and write procedures for

assigning additional direct costs from the regular sessions to the special sessions. This further implies that support costs would be allocated to subprogram 1.3 during the full costing procedures.

Alternative 3: Combine the data from subprogram 1.3 with data from subprograms 1.1 and 1.2 at some point in the costing procedures. This can be accomplished easily in the FAA procedures as illustrated in Steps (5) through (8) (pp.84-87).

As a long-range objective, the task force urges schools to improve their data systems for special sessions so that a separate and complete analysis can be performed on subprogram 1.3, similar to those procedures proposed for subprograms 1.1 and 1.2. This would include some type of faculty activity analysis for special sessions. In the interim, the task force recommends Alternative 3, combining special session data with regular session data during the direct cost procedures.

CHAPTER IV

SECTION D - ADMINISTRATIVE/SUPPORT PERSONNEL

The task force considered three alternative procedures for distributing compensation and FTE service months associated with administrative/ support personnel to the PCS activity centers.

Alternative 1: Conduct an historical analysis of activities in which the data are provided by the individual and verified by the supervisor.

Alternative 2: Conduct an historical analysis of activities in which the data for each individual are provided by the supervisor and reviewed by the appropriate vice-president or the director of institutional research.

Alternative 3: Accept the expenditure data as crossed over from the accounting records.

The task force recommends that special surveys or studies should be performed on this group of personnel only if the resulting shift of dollars among the PCS activity centers is felt to be material. Employees classified as administrative/support personnel generally engage in fewer types of activities than do faculty members and, therefore, the allocation of their time and salaries is better reflected in the accounting system.

The following procedures illustrate Alternative 1 which specifies an historical analysis of activities completed by the individual. The appropriate form, Administrative/Support Activity Survey, and accompanying instructions are included in Appendix D. Figure 11 is an example of a completed activity survey form. The individual is paid totally from the counseling center's budget but he also teaches an Education class and counsels part-time in student housing. The procedures used to distribute compensation and FTE service months to PCS activity centers parallel those illustrated for the faculty activity analysis.

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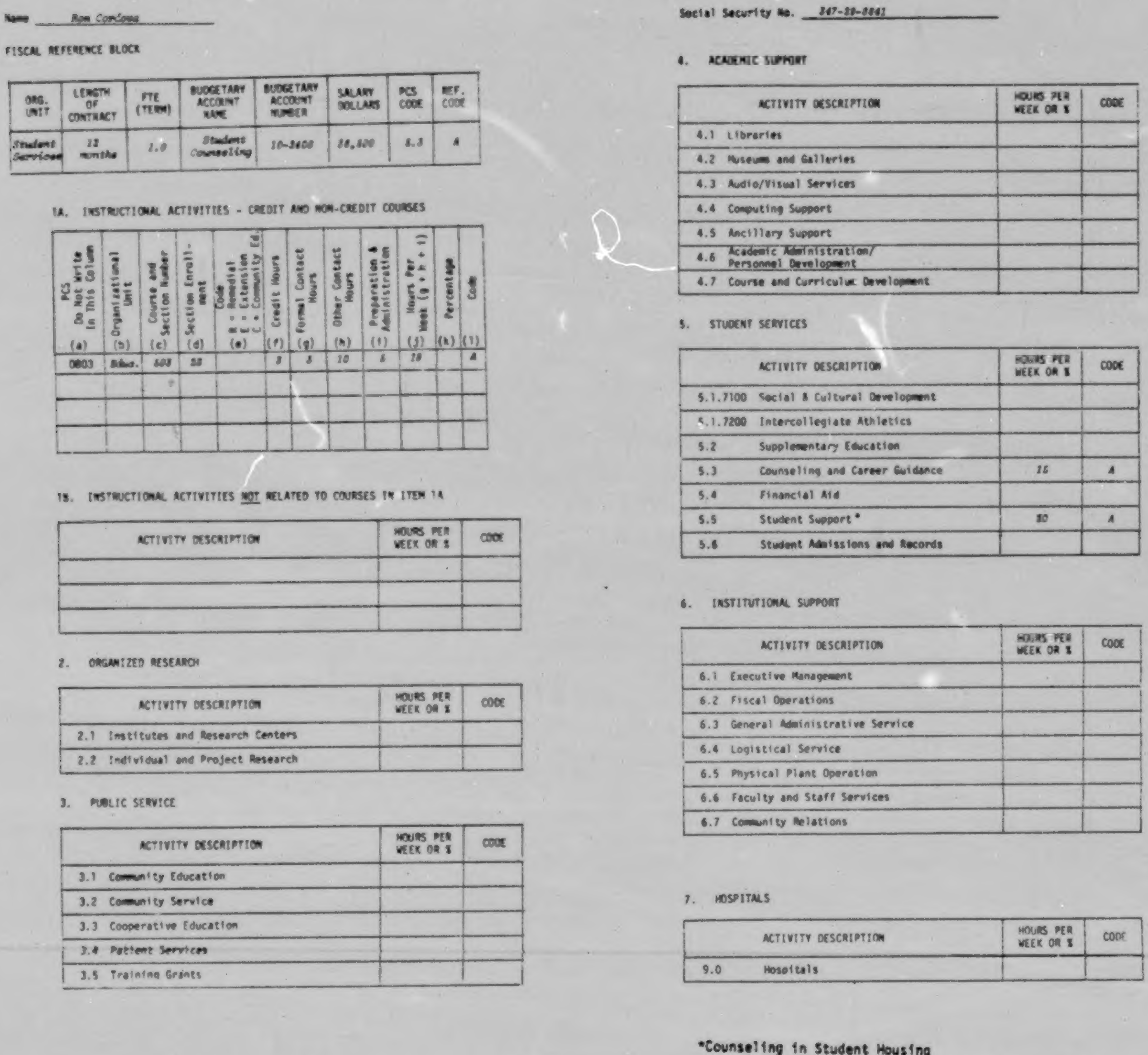
FIGURE 11

ADMINISTRATIVE/SUPPORT ACTIVITY SURVEY

__Instructions:__ Enter the appropriate hours per week or percentage of time spent on each activity group listed on this form. Before completing the form be sure to read the detailed activities descriptions which appear on the following pages.



Name *Ron Cordova*

Social Security No. *347-20-8841*

FISCAL REFERENCE BLOCK

ORG. UNIT	LENGTH OF CONTRACT	FTE (TERM)	BUDGETARY ACCOUNT NAME	BUDGETARY ACCOUNT NUMBER	SALARY DOLLARS	PCS CODE	REF. CODE
Student Services	*12 months*	*1.0*	*Student Counseling*	*10-3400*	*28,800*	*5.3*	*A*

1A. INSTRUCTIONAL ACTIVITIES - CREDIT AND NON-CREDIT COURSES

PCS Do Not Write In This Column (a)	Organizational Unit (b)	Course and Section Number (c)	Section Enrollment (d)	Code R = Remedial E = Extension C = Community Ed. (e)	Credit Hours (f)	Formal Contact Hours (g)	Other Contact Hours (h)	Preparation & Administration (i)	Hours Per Week (g + h + i) (j)	Percentage (k)	Code (l)
0803	*Educ.*	*603*	*28*		*3*	*3*	*10*	*6*	*19*		*A*

1B. INSTRUCTIONAL ACTIVITIES __NOT__ RELATED TO COURSES IN ITEM 1A

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE

2. ORGANIZED RESEARCH

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
2.1 Institutes and Research Centers		
2.2 Individual and Project Research		

3. PUBLIC SERVICE

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
3.1 Community Education		
3.2 Community Service		
3.3 Cooperative Education		
3.4 Patient Services		
3.5 Training Grants		

4. ACADEMIC SUPPORT

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
4.1 Libraries		
4.2 Museums and Galleries		
4.3 Audio/Visual Services		
4.4 Computing Support		
4.5 Ancillary Support		
4.6 Academic Administration/ Personnel Development		
4.7 Course and Curriculum Development		

5. STUDENT SERVICES

ACTIVITY DESCRIPTION		HOURS PER WEEK OR %	CODE
5.1.7100	Social & Cultural Development		
5.1.7200	Intercollegiate Athletics		
5.2	Supplementary Education		
5.3	Counseling and Career Guidance	*16*	*A*
5.4	Financial Aid		
5.5	Student Support*	*10*	*A*
5.6	Student Admissions and Records		

6. INSTITUTIONAL SUPPORT

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
6.1 Executive Management		
6.2 Fiscal Operations		
6.3 General Administrative Service		
6.4 Logistical Service		
6.5 Physical Plant Operation		
6.6 Faculty and Staff Services		
6.7 Community Relations		

7. HOSPITALS

ACTIVITY DESCRIPTION		HOURS PER WEEK OR %	CODE
9.0	Hospitals		

*Counseling in Student Housing

Step 1: Determine the PCS code to be attached to each line entry, thereby designating the appropriate activity center for each recorded activity.

The Administrative/Support Activity Survey has been designed to provide easy mapping to the PCS. Section 2 (Organized Research) through Section 6 (Institutional Support) will map directly to a PCS subprogram as indicated on the form. Sections 1A and 1B on the form are mapped to the PCS in the same manner as faculty activities, using the mapping conventions outlined in Table 9.

Step 2: Convert costable hours to percentages by activity center for each individual.

Sum hours by activity centers. The reported hours for each activity center are entered on an individual summary sheet in the column headed "Costable Hours." The "Costable Hours" column then is totaled and each of the entries converted to a percentage of the total (Table 17).

Step 3: Multiply the percentages derived in Step 2 by each individual's total FTE service months.

Total FTE service months can be determined from the length of contract block and the FTE block at the top of the survey form. Ron Cordova's workload is 1.0 FTE and his contract is for 12 months. Therefore, his total FTE service months equal 12.0. These service months are distributed across the percentages calculated in Step 2 (see Table 17).

TABLE 17

DISTRIBUTION OF SERVICE MONTHS TO ACTIVITY CENTERS

Name: Ron Cordova

Social Security No.: 347-29-8641

Total Service Months 12.0

PCS Code	Costable Hours	% Of Time	Service Months
1.1.0803.50	18	34%	4.1
5.3	15	28%	3.4
5.5.7330	20	38%	4.5
Totals	53	100%	12.0

Step 4: Multiply the percentage of costable hours assigned to each PCS code by the individual's salary as shown in the fiscal reference block. (Example: $6,500 from Figure 11.) (See Table 18.)

TABLE 18

COSTABLE HOURS WEIGHTED BY INDIVIDUAL'S SALARY DOLLARS

Name Ron Cordova Social Security No. 347-29-8641

PCS Code	Costable Hours	Percent of Total Costable Hours	Salary Dollars
1.1.0803.50	18	34%	$ 2,210
5.3	15	28%	1,820
5.5.7330	20	38%	2,470
TOTALS	53	100%	$ 6,500

Step 5: Accumulate by activity center all salary dollars paid to administrative/support personnel from each organizational unit's budget. (Example: Table 19.)

Step 6: Convert the dollars accumulated in Step 5 to percentages for each PCS code within each organizational unit.

TABLE 19

INDIVIDUAL RECORDS MERGED INTO ORGANIZATIONAL UNIT TOTALS

ORGANIZATIONAL UNIT: STUDENT COUNSELING		
PCS Code	Salary Dollars	Percent of Total Salary Dollars
1.1.0802.30	$ 2,538	10.9%
1.1.0803.50	2,210	9.5%
5.1.7110	1,408	6.0%
5.2	2,037	8.8%
5.3	10,615	45.6%
5.5.7330	2,470	10.6%
5.6	2,002	8.6%
TOTALS	$23,280	100.0%

Step 7: Using the percentages arrived at in Step 6, distribute the total fiscal year compensation paid to administrative/support personnel that was crossed over to the appropriate PCS code for the organizational unit during the account crossover. (See Figure 12.)

Again, note that the total recorded in the accounting system ($27,560) differs from the total of the individual administrative/support activity reports ($23,280 from Table 19). This difference can be due to several factors: all student counseling personnel not completing an activity report, additional fringe benefits assigned to the student counseling unit during the account crossover, and so forth. Any large difference between these two totals should be explained.

FIGURE 12

DISTRIBUTION OF ADMINISTRATIVE/SUPPORT COMPENSATION

Total Administrative/ Support Compensation at Crossover		Distributed Administrative/ Support Compensation		
$27,560	10.9%	$ 3,000	to	1.1.0802.30
	9.5%	2,618	to	1.1.0803.50
	6.0%	1,654	to	5.1.7110
	8.8%	2,425	to	5.2
	45.6%	12,567	to	5.3
	10.6%	2,922	to	5.5.7330
	8.6%	2,374	to	5.6

CHAPTER IV

SECTION E - OTHER STAFF COMPENSATION

During the account crossover, discussed in Chapter III, other staff compensation within the Instruction program was assigned a HEGIS discipline code. For example, if two secretaries were paid from funds budgeted to the History department, their compensation was crossed over to Instruction/History (1.1.2205). Two problems remain:

1. A procedure is needed to distribute other staff compensation to course levels within each discipline. Three course levels are specified for costing purposes.

   Lower Division: Course offerings at a level of comprehension usually associated with freshman and sophomore students.

   Upper Division: Course offerings at a level of comprehension usually associated with junior and senior students. Jointly offered upper division/graduate courses should be classified as upper division.

   Graduate: Course offerings at a level of comprehension usually associated with postbaccalaureate students.

2. Faculty compensation was distributed to many activity centers outside of the Instructional program through the use of a survey of faculty activities. Two choices clearly are evident: other staff compensation can remain in the discipline to which it was assigned initially or other staff compensation can be distributed to a broad range of activity centers that fall within many programs of the PCS.

In considering these problems, three alternative procedures again emerge:

Alternative 1: Conduct an historical analysis of activities in which the data are provided by the departmental chairman or other immediate supervisor.

Alternative 2: Accept the expenditure data as crossed over to disciplines from the accounting records and distribute those dollars to course levels within each discipline on the basis of the percentage of total faculty compensation assigned to each course level.

Alternative 3: Distribute other staff compensation in the same proportion and to the same activity centers that faculty compensation was assigned previously. This distribution should be based on the set of percentages developed for each discipline in Section C of this chapter.

While Alternative (1) probably will yield the most accurate cost data, separate analyses on nonexempt personnel activities rarely are performed. Alternatives (2) and (3) are illustrated for a specific discipline to demonstrate the resulting shift of dollars.

Assume that $14,959 other staff compensation was assigned to the Botany department (0402) during the account crossover. If alternative procedure (2) were followed, other staff compensation would be distributed within the Botany department on the basis of total faculty compensation previously assigned to each course level. Table 20 illustrates this procedure using faculty compensation data previously assigned to Botany course levels (see Figure 9).

TABLE 20

DISTRIBUTION OF OTHER STAFF COMPENSATION - ALTERNATIVE 2

PCS Code	Faculty Compensation	Percent of Faculty Compensation	Other Staff Compensation
1.1.0402.20	$11,191	25.0%	$ 3,740
1.1.0402.30	17,906	40.0%	5,984
1.1.0402.50	15,668	35.0%	5,235
TOTALS	$44,765	100.0%	$14,959

Alternative procedure (3) distributes the same $14,959 of other staff compensation across a much broader range of activity centers. (See Table 21 and Figure 9.) The result is a shift of dollars from Instructional activity centers to non-Instructional activity centers.

TABLE 21

DISTRIBUTION OF OTHER STAFF COMPENSATION - ALTERNATIVE 3

PCS Code	Faculty Compensation	Percent of Faculty Compensation	Other Staff Compensation
1.1.0402.20	$11,191	14.0%	$ 2,095
1.1.0402.30	17,906	22.2%	3,321
1.1.0402.50	15,668	19.6%	2,931
2.2.0402	15,430	19.3%	2,887
4.6.0402	9,380	11.7%	1,750
4.7.0402	8,953	11.2%	1,675
5.1.7110	675	.8%	120
5.3	922	1.2%	180
TOTALS	$80,125	100.0%	$14,959

SECTION F - SUPPLIES AND SERVICES

The problems associated with supplies and services and the recommended procedures are the same as those outlined for other staff compensation. Briefly, three alternative procedures are recommended:

> Alternative 1: Estimate the actual usage of supplies and services by the various activity centers within a discipline.
>
> Alternative 2: Accept the expenditure data as crossed over to disciplines from the accounting records and distribute those dollars to course levels within each discipline on the basis of the percentage of total faculty compensation assigned to each course level. (See Table 22.)
>
> Alternative 3: Distribute other staff compensation in the same proportion and to the same activity centers that faculty compensation was assigned previously. This distribution should be based on the set of percentages developed for each discipline in Section C of this chapter. (See Table 23.)

TABLE 22

DISTRIBUTION OF SUPPLIES AND SERVICES - ALTERNATIVE 2

PCS Code	Faculty Compensation	Percent of Faculty Compensation	Supplies and Services
1.1.0402.20	$11,191	25.0%	$ 3,209
1.1.0402.30	17,906	40.0%	5,135
1.1.0402.50	15,668	35.0%	4,493
TOTALS	$44,765	100.0%	$12,837

TABLE 23

DISTRIBUTION OF SUPPLIES AND SERVICES - ALTERNATIVE 3

PCS Code	Faculty Compensation	Percent of Faculty Compensation	Supplies and Services
1.1.0402.20	$11,191	14.0%	$ 1,797
1.1.0402.30	17,906	22.2%	2,850
1.1.0402.50	15,668	19.6%	2,516
2.2.0402	15,430	19.3%	2,477
4.6.0402	9,380	11.7%	1,502
4.7.0402	8,953	11.2%	1,438
5.1.7110	675	.8%	103
5.3	922	1.2%	154
TOTALS	$80,125	100.0%	$12,837

CHAPTER IV

SECTION G - TOTAL DIRECT COSTS

Total direct costs are calculated by summing:

- instruction/research/public service personnel compensation,
- administrative/support personnel compensation,
- other staff compensation, and
- supplies and services expenditures.

Each of these direct cost categories should reflect the adjustments made in the direct cost studies discussed in the previous sections. Table 24 displays a set of direct cost data by object of expenditure.*

---

*Table 24 contains direct cost data for all departments and support units for a small liberal arts college. The previous examples illustrated in this chapter were for individual departments and support units within that college. Because several departments or support units can contribute costs to the summary totals, it is difficult, if not impossible, to reconcile the individual numbers presented earlier in this chapter to the summary totals.

TABLE 24

TOTAL DIRECT COSTS BY OBJECT OF EXPENDITURE

Code	Activity Center Name	I/R/PS* Compensation	Administrative Support Compensation	Other Staff Compensation	Supplies and Services	Total Direct Costs
1.1.0401.20	Biology - LD**	$ 24,621	-	$ 4,551	$ 3,840	$ 33,012
1.1.0402.20	Botany - LD	11,191	-	2,276	1,920	15,387
1.1.0402.30	Botany - UD***	17,906	-	3,287	2,773	23,966
1.1.0402.50	Botany - GD****	15,668	-	2,781	2,346	20,795
1.1.0407.20	Zoology - LD	22,382	-	3,287	2,773	28,442
1.1.0407.30	Zoology - UD	22,382	-	3,540	2,986	28,908
1.1.0407.50	Zoology - GD	13,429	-	2,529	2,133	18,091
1.1.0502.20	Accounting - LD	6,364	-	840	404	7,608
1.1.0502.30	Accounting - UD	15,910	-	1,959	942	18,811
1.1.0502.50	Accounting - GD	10,455	$ 3,900	1,866	898	17,119
1.1.0509.20	Marketing - LD	4,899	-	584	252	5,735
1.1.0509.30	Marketing - UD	14,698	3,120	2,092	902	20,812
1.1.0509.50	Marketing - GD	19,597	-	2,189	944	22,730
1.1.0802.20	Elementary Education - LD	10,871	-	1,539	427	12,837
1.1.0802.30	Elementary Education - UD	51,247	3,000	6,155	1,709	62,111
1.1.0802.50	Elementary Education - GD	62,117	-	7,694	2,136	71,947
1.1.0803.20	Secondary Education - LD	17,086	-	1,856	530	19,472
1.1.0803.30	Secondary Education - UD	46,133	-	4,640	1,325	52,098
1.1.0803.50	Secondary Education - GD	88,848	6,000	8,970	2,562	106,380
1.1.0835.20	Physical Education - LD	37,637	-	1,829	1,565	41,031
1.1.0835.30	Physical Education - UD	10,673	-	610	522	11,805
1.1.1501.20	English - LD	39,258	-	5,121	1,610	45,989
1.1.1501.30	English - UD	54,620	5,400	7,316	2,300	69,636
1.1.1501.50	English - GD	49,500	-	5,853	1,840	57,193
1.1.1701.20	Mathematics - LD	44,073	-	6,394	1,842	52,309
1.1.1701.30	Mathematics - UD	17,314	-	1,804	520	19,638
1.1.1902.20	Physics - LD	14,735	-	1,665	1,583	17,983
1.1.1902.30	Physics - UD	33,890	-	4,301	4,089	42,280
1.1.1905.20	Chemistry - LD	23,576	-	2,636	2,506	28,718
1.1.1905.30	Chemistry - UD	41,257	-	5,273	5,012	51,542
1.1.2204.20	Economics - LD	31,762	-	4,476	1,340	37,578
1.1.2204.30	Economics - UD	25,409	-	3,385	1,013	29,807
1.1.2204.50	Economics - GD	21,780	-	3,057	915	25,752
1.1.2205.20	History - LD	36,561	-	4,228	1,364	42,153
1.1.2205.30	History - UD	45,701	-	6,420	2,071	54,192
1.1.2205.50	History - GD	41,131	-	5,011	1,616	47,758

*Instruction/Research/Public Service
**Lower Division
***Upper Division
****Graduate

TABLE 24

TOTAL DIRECT COSTS BY OBJECT OF EXPENDITURE (Con't.)

Code	Activity Center Name	I/R/PS Compensation	Administrative Support Compensation	Other Staff Compensation	Supplies and Services	Total Direct Costs
1.4.0000	Extension Instruction for Credit	$ 78,496	-	$ 8,976	$ 7,487	$ 94,959
2.1.0500	Bureau of Business Research	36,200	-	10,000	3,300	49,500
2.2.0401	Waterfowl Migration Study	31,000	-	10,200	6,600	47,800
2.2.0402	Mutation Recurrence Project	22,000	-	6,100	8,215	36,315
3.1.0000	Public Service, Community Education	10,704	-	1,224	1,021	12,949
3.1.0502	Community Education, Accounting	1,364	-	-	-	1,364
3.1.0509	Community Education, Marketing	980	-	-	-	980
3.1.0802	Community Education, Elementary Education	1,553	-	-	-	1,553
3.1.1902	Community Education, Physics	4,420	-	-	-	4,420
3.2.0000	Public Service, Community Service	-	$ 5,730	2,040	1,220	8,990
3.2.0502	Community Service, Accounting	1,818	-	-	-	1,818
3.2.1501	Community Service, English	1,707	-	-	-	1,707
3.2.2205	Community Service, History	1,523	-	-	-	1,523
4.1.0000	Academic Support-Libraries-Central Service	-	21,600	12,240	1,425	35,265
4.1.0050	Academic Support-Libraries-General Studies	-	14,400	36,720	87,910	139,030
4.1.0060	Academic Support-Libraries-General Production	-	36,000	12,240	5,614	53,854
4.2.0000	Academic Support, Museums and Galleries	-	15,668	3,034	2,560	21,262
4.4.0000	Academic Support, Computing Support	-	11,968	7,360	22,924	42,252
4.6.0000	Dean, Arts and Sciences	-	51,000	14,000	42,000	107,000
4.6.0401	Academic Administration, Biology	20,144	-	-	-	20,144
4.6.0402	Academic Administration, Botany	24,621	-	-	-	24,621
4.6.0407	Academic Administration, Zoology	22,382	-	-	-	22,382
4.6.0500	Academic Administration, Dean of Bus. & Econ.	7,030	18,980	11,000	7,500	44,510
4.6.0502	Academic Administration, Accounting	5,455	-	-	-	5,455
4.6.0509	Academic Administration, Marketing	5,879	-	-	-	5,879
4.6.0800	Academic Administration, Dean of Education	8,232	16,000	11,000	6,200	41,432
4.6.0802	Academic Administration, Elementary Education	18,635	-	-	-	18,635
4.6.0803	Academic Administration, Secondary Education	13,669	-	-	-	13,669
4.6.0835	Academic Administration, Physical Education	6,179	-	-	-	6,179
4.6.1501	Academic Administration, English	17,069	-	-	-	17,069
4.6.1701	Academic Administration, Math	13,379	-	-	-	13,379
4.6.1902	Academic Administration, Physics	13,261	-	-	-	13,261
4.6.1905	Academic Administration, Chemistry	14,735	-	-	-	14,735
4.6.2204	Academic Administration, Economics	10,890	-	-	-	10,890
4.6.2205	Academic Administration, History	22,850	-	-	-	22,850
4.6.4900	Academic Administration, Interdisc. Studies	5,121	21,600	7,000	5,900	39,621
4.7.0401	Course & Curriculum Development, Biology	4,476	-	-	-	4,476
4.7.0402	Course & Curriculum Development, Botany	8,953	-	-	-	8,953
4.7.0802	Course & Curriculum Development, Elem. Educ.	7,765	-	-	-	7,765
4.7.0835	Course & Curriculum Development, Phys. Educ.	1,685	-	-	-	1,685
4.7.1501	Course & Curriculum Development, English	3,414	-	-	-	3,414

TABLE 24

TOTAL DIRECT COSTS BY OBJECT OF EXPENDITURE (Con't.)

Code	Activity Center Name	I/R/PS Compensation	Administrative Support Compensation	Other Staff Compensation	Supplies and Services	Total Direct Costs
4.7.1701	Course & Curriculum Development, Math	$ 3,935	-	-	-	$ 3,935
4.7.1905	Course & Curriculum Development, Chemistry	1,473	-	-	-	1,473
4.7.2204	Course & Curriculum Development, Economics	907	-	-	-	907
4.7.2205	Course & Curriculum Development, History	4,570	-	-	-	4,570
5.1.7110	Student Services	8,360	$ 18,140	$ 7,750	$ 21,500	55,750
5.1.7120	Sterling Lecture Series	-	-	-	15,415	15,415
5.1.7140	Student Union	2,980	8,820	15,300	18,600	45,700
5.1.7200	Intercollegiate Athletics	19,700	147,100	51,000	53,420	271,220
5.2.0000	Remedial Instruction Skills	9,700	12,300	2,550	4,000	28,550
5.2.0070	FORTRAN Programming	-	16,500	5,100	5,200	26,800
5.3.0000	Counseling, Career Guidance	8,400	15,800	15,260	6,700	46,160
5.4.0000	Financial Aid Administration	-	21,800	6,690	2,700	31,190
5.5.7310	Food Services	-	39,100	42,800	32,680	114,580
5.5.7311	Food Services, Cost of Goods Sold	-	-	-	130,720	130,720
5.5.7320	Health Services	-	48,000	12,000	10,400	70,400
5.5.7330	Housing Services	-	42,300	15,300	24,200	81,800
5.5.7331	Housing Services, Cost of Goods Sold	-	-	-	96,800	96,800
5.5.7340	Retail Services	-	8,600	23,750	2,100	34,450
5.5.7341	Retail Services, Cost of Goods Sold	-	-	-	126,740	126,740
5.6.0000	Student Admissions and Records	-	25,400	22,800	16,003	64,203
6.1.8110	Executive Management	-	77,220	25,010	19,900	122,130
6.1.8120	Planning and Programming	-	20,250	12,350	3,380	35,980
6.1.8130	Legal Services	-	-	-	6,750	6,750
6.2.8210	Financial Operations	-	19,400	24,000	6,300	49,700
6.3.8160	Computing Center	-	25,432	15,640	48,715	89,787
6.4.8170	Environmental Health and Safety	-	-	28,000	2,400	30,400
6.4.8251	Mail and Distribution	-	-	-	3,460	3,460
6.4.8252	Telephone and Telegraph	-	-	-	8,245	8,245
6.4.8253	Printing and Reproduction	-	-	-	18,600	18,600
6.4.8260	Transportation Services	-	-	14,000	7,300	21,300
6.5.8310	Utilities	-	-	-	69,800	69,800
6.5.8320	Building Maintenance	-	16,300	29,530	32,280	78,110
6.5.8330	Grounds Maintenance	-	14,300	13,530	2,464	30,294
6.5.8340	Custodial Services	-	17,300	72,040	7,600	96,940
6.5.8390	General Insurance	-	-	-	14,688	14,688
6.7.8175	Alumni Office	-	17,500	8,200	4,200	29,900
6.7.8180	Public Relations	-	16,400	6,000	4,400	26,800
6.7.8181	Community Relations - Memberships	-	-	-	16,218	16,218
	TOTALS	$1,552,295	$862,328	$753,748	$1,117,264	$4,285,635

CHAPTER V

CAPITAL COSTS

SECTION A - INTRODUCTION

The CFP Task Force was charged with developing procedures that would account for the full cost of resources used in the process of achieving institutional objectives. The task force recognized very early that the current operating expenditures as recorded in the institution's accounting system reflect only a portion of the total cost of resources used. A major component is missing--the cost of the capital assets owned by the institution. In order to satisfy the original charge, the task force felt it was appropriate to develop procedures for calculating an annual cost of capital assets.*

A distinction needs to be made between capital expenditures and capital costs. Capital expenditures are one-time expenditures for physical resources that will benefit a program for more than one operating period. On the other hand, capital costs represent the valuation placed on the services provided by land, buildings, and equipment owned and used by an institution during a given time period. For example, if a building is constructed for $500,000, that expenditure is a capital expenditure in the year the building was constructed. The capital cost, on the other hand, for some subsequent fiscal period may be estimated to be $50,000 (the total of a $10,000 depreciation charge plus $40,000 which represents the opportunity cost of the original investment).

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*The recommended procedures and definitions in this chapter are based upon the Capital Cost Study conducted by John Powel and the Operating Capital Cost Study conducted by Dallas Fox, Dan Voich, Jr., and Jim Howell. A portion of the Capital Cost Study has been reproduced as Appendix E.

The annual cost of any capital asset then is defined as the annual depreciation of the asset plus the annual interest foregone on the investment in that asset. Determination of the annual cost of capital assets by the user therefore involves the following tasks:

1. Calculating the institution's total investment in capital assets.
2. Estimating the annual depreciation of those capital assets.
3. Computing the annual interest foregone on the total investment.
4. Allocating these costs to users.

If the institution leases all or part of its capital assets, the annual lease expenditure can serve as a substitute for the calculated capital cost. It was found in the pilot test that annual lease payments closely approximated the capital cost of owned space as calculated by the procedures recommended later in this chapter. Rental payments that flow through the current operating expenditures therefore should be segregated during the account crossover (that is, excluded from direct costs) and treated in a manner consistent with other capital costs.

CHAPTER V

SECTION B - DEFINITIONS

For the purposes of the Cost Finding Principles project, capital assets are defined as:

Land: Unimproved real estate. While land is an asset with alternative uses, the conceptual and practical difficulties in measuring its value--and hence its real cost to users--are so complex that the task force decided to concentrate on only the depreciable assets of colleges and universities, that is, land improvements, buildings, and capital equipment.*

Land Improvements: Real estate improvements other than buildings. This capital asset category includes such improvements as streets, roads, sidewalks, bridges, outside lighting, irrigation systems, trees, plantings, landscaping, parking lots, fencing, and improvements to athletic fields and recreational areas.

Buildings: Facilities permanently affixed to the land, including their associated heating and air-conditioning systems, electrical and sound systems, plumbing and sewer systems, elevators, and other fixed equipment.

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*This statement implies that lease payments for unimproved land are also to be excluded from the cost study - if they are separately identified and accounted for.

The historical cost of buildings is defined as the original acquisition cost of the building plus the cost of any subsequent additions to the building. This definition specifically excludes building renovations. Renovations are defined as those expenditures made primarily to restore or repair a facility without making significant changes in function and without actually increasing the size or capacity of the facility. Additions are defined as those expenditures made primarily to enlarge or expand existing facilities and/or significantly alter their function.

Capital Equipment: All movable property (not permanently attached to a building) having an acquisition cost of $500 or more and an expected service life that exceeds two years.

In addition to the minimum service life and acquisition cost criteria stated in the definition, the following guidelines should be used to classify equipment:

1. Method of Valuation: Equipment items should be valued at original cost to the institution. Equipment acquired through contracts and grants or through surplus or salvage purchases should be valued at cost to the institution at the time of acquisition. If there is no original cost to the institution, as in the case of donated equipment, the equipment would assume the market value at the date of donation.

2. Consolidation of Similar Capital Equipment Items: Similar items of movable property and equipment that individually cost less than $500 but have an estimated service life of considerably longer than two years should be consolidated and treated as a single item of capital equipment (for example, classroom chairs, small calculators, low cost items of office furniture). Books and periodicals should not be capitalized, but rather treated as a current operating expense in the year of purchase.

3. Treatment of Equipment Expenditures as a Current Operating Expense: Items of equipment that fail to meet the minimum service life and acquisition cost criteria should be classified as noncapital equipment and included in the direct cost category of supplies and services.

4. Treatment of Fixed Equipment as a Portion of Buildings: Items of equipment permanently attached to a building, whether incorporated into the building at the time of construction or during later modification, should be considered a portion of that building and, therefore, not classified as capital equipment. Examples of fixed equipment include laboratory benches with service connections for water, gas, or electricity; fume hoods; cold rooms; chalkboards attached to walls; light fixtures; built-in cabinets or counters; and permanently installed heating and cooling apparatus.

5. Source of Funds: Source of funds should be ignored when classifying equipment. The fact that equipment items are purchased from both the current operating and capital budgets should not influence the classification of those equipment items.

6. Ten-Year Purchase Period: For the purposes of this cost study, an annual capital cost will be calculated only for those equipment items purchased within the most recent ten-year period.

CHPATER V

SECTION C - MODIFICATIONS TO THE PROGRAM CLASSIFICATION STRUCTURE

Two activity centers have been added to the Program Classification Structure to account for the cost of capital assets:

6.8 Capital Cost--Buildings and Land Improvements

This activity center consists of all capital costs attributed to buildings and land improvements (both owned and leased) used by the institution in operating its programs. The capital costs can be measured in either of two ways: (a) if the buildings and land improvements are leased, the annual capital cost is equivalent to the total rental expenditures; (b) if the buildings and land improvements are owned by the institution, the annual capital cost is defined as the current depreciation of the asset plus the interest foregone on the investment in that asset.

6.9 Capital Cost--Equipment

This activity center consists of all capital costs attributed to equipment (both owned and leased) used by the institution in operating its programs. The capital costs can be measured in either of two ways: (a) if the equipment is leased, the annual capital cost is equivalent to the total rental expenditures; (b) if the equipment is owned by the institution, the annual capital cost is defined as the current depreciation of the asset plus the interest foregone on the investment in that asset.

CHAPTER V

SECTION D - CALCULATING AN ANNUAL CAPITAL COST FOR BUILDINGS AND LAND IMPROVEMENTS

The procedures recommended to calculate an annual capital cost for buildings and land improvements owned and leased by the institution can be summarized as follows:

Step 1: Total the historical costs of all buildings, additions to buildings, and other land improvements owned by the institution. Disregard the year in which the building or the addition was acquired. (It is assumed that the buildings are maintained at their original service value.)

Step 2: Calculate the annual charge for depreciation by multiplying 2% times the sum of the historical costs calculated in Step 1. Do not adjust the sum of historical costs for inflation.

Step 3: Calculate the annual interest foregone on the institution's total investment in facilities by multiplying 8% times the sum of the historical costs calculated in Step 1. Do not adjust the sum of historical costs for inflation nor for prior year's depreciation.*

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*The interest calculation is in lieu of actual interest paid. Actual interest payments could be substituted for this calculation for those capital assets (or portions thereof) with outstanding debt.

Step 4: Segregate the annual rental payments for buildings leased by the institution. This step should have been completed earlier as part of the account crossover (see Chapter III).

Step 5: Sum the results of Steps 2, 3, and 4 and transfer this figure (the annual capital cost for buildings) to activity center 6.8, Capital Cost - Buildings and Land Improvements.

Step 6: Allocate the costs in activity center 6.8 to all users of institutionally owned or leased physical facilities. The recommended allocation parameter is assignable square feet.* Procedures for collecting assignable square feet are discussed in the following section. If assignable square feet data are not available an alternative parameter is total direct costs.

Figure 13 illustrates the steps for calculating the annual capital cost for buildings and land improvements. Table 25 displays the annual capital cost for buildings and land improvements for all activity centers as determined using the recommended procedures.

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*The question of assigning weights to the parameter "assignable square feet" to account for differences in room use type and construction type was examined in a study conducted by John Powel, Information Loss from Aggregation in Capital Cost Distribution. The results of this study indicate that, for information exchange purposes, if data are exchanged at the subprogram or program level of the Program Classification Structure, the procedures using unweighted assignable square feet do not produce significantly different results from those procedures employing various weights for room use and construction type. Furthermore, when the procedures were tested at the discipline level, the weighted parameters (when compared to the unweighted parameter) produced significantly different distributions in only two of seven HEGIS discipline categories examined. The task force recognizes, however, that the practice of assigning weights to assignable square feet may be appropriate for certain types of cost studies and encourages further investigation in this area.

FIGURE 13: ANNUAL CAPITAL COST FOR BUILDINGS AND LAND IMPROVEMENTS

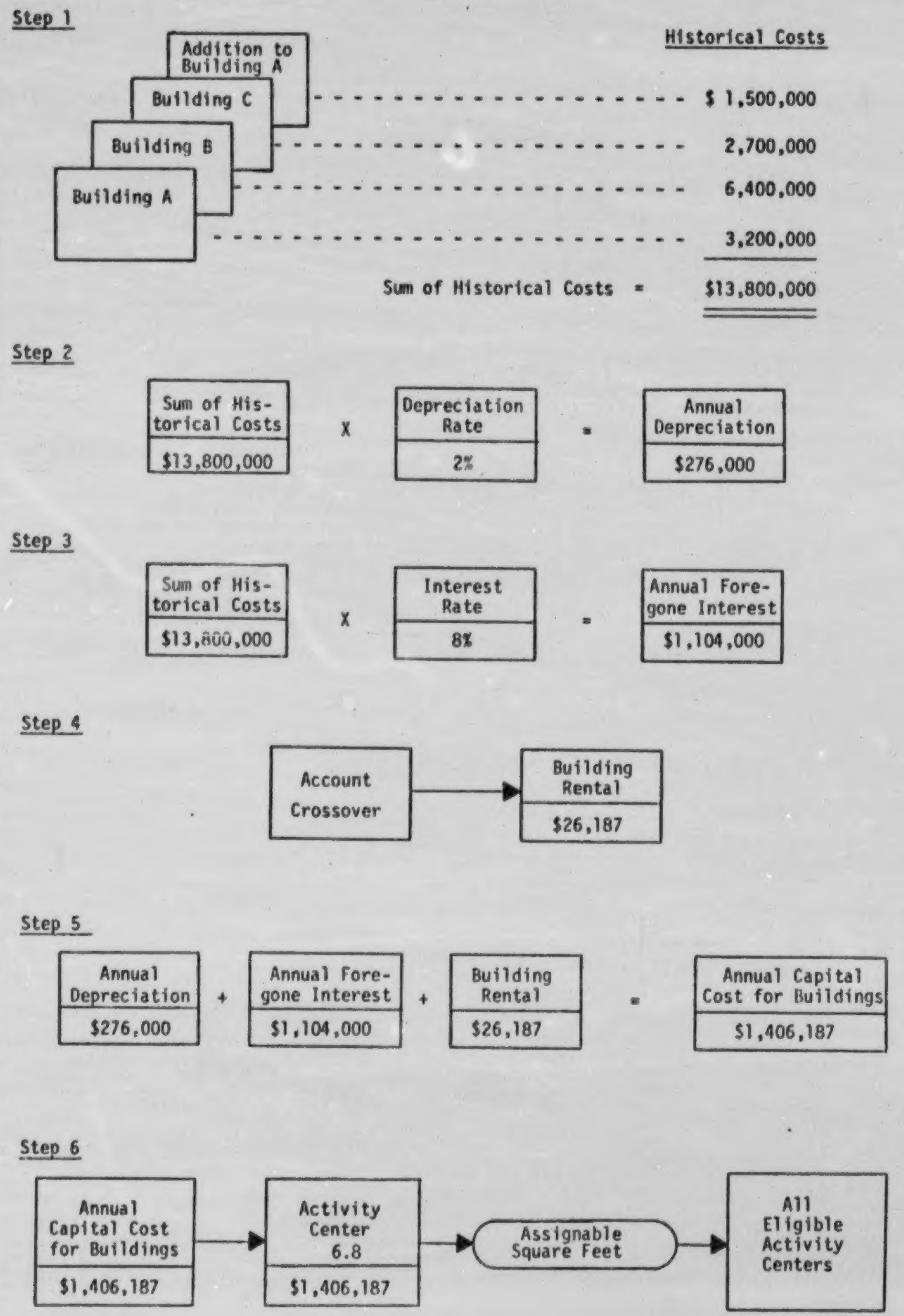
Step 1
Addition to Building A
Building C
Building B
Building A
Historical Costs
$ 1,500,000
2,700,000
6,400,000
3,200,000
Sum of Historical Costs = $13,800,000
Step 2
Sum of Historical Costs
$13,800,000
X
Depreciation Rate
2%
=
Annual Depreciation
$276,000
Step 3
Sum of Historical Costs
$13,800,000
X
Interest Rate
8%
=
Annual Foregone Interest
$1,104,000
Step 4
Account Crossover
Building Rental
$26,187
Step 5
Annual Depreciation
$276,000
+
Annual Foregone Interest
$1,104,000
+
Building Rental
$26,187
=
Annual Capital Cost for Buildings
$1,406,187
Step 6
Annual Capital Cost for Buildings
$1,406,187
Activity Center 6.8
$1,406,187
Assignable Square Feet
All Eligible Activity Centers

TABLE 25

CAPITAL COST OF BUILDINGS AND LAND IMPROVEMENTS ALLOCATED TO ACTIVITY CENTERS

Code	Activity Center Name	Assignable Square Feet	Percent of ASF	Capital Cost of Buildings
1.1.0401.20	Biology - LD*	2,742	2.225	$ 31,287
1.1.0402.20	Botany - LD	1,080	.876	12,318
1.1.0402.30	Botany - UD**	1,180	.957	13,457
1.1.0402.50	Botany - GD***	505	.410	5,765
1.1.0407.20	Zoology - LD	1,077	.874	12,290
1.1.0407.30	Zoology - UD	989	.802	11,278
1.1.0407.50	Zoology - GD	556	.451	6,341
1.1.0502.20	Accounting - LD	346	.281	3,951
1.1.0502.30	Accounting - UD	551	.447	6,286
1.1.0502.50	Accounting - GD	328	.266	3,740
1.1.0509.20	Marketing - LD	244	.198	2,784
1.1.0509.30	Marketing - UD	577	.468	6,581
1.1.0509.50	Marketing - GD	422	.342	4,809
1.1.0802.20	Elementary Education - LD	685	556	7,818
1.1.0802.30	Elementary Education - UD	2,103	1.706	23,989
1.1.0802.50	Elementary Education - GD	1,571	1.275	17,929
1.1.0803.20	Secondary Education - LD	894	.725	10,195
1.1.0803.30	Secondary Education - UD	1,616	1.311	18,435
1.1.0803.50	Secondary Education - GD	1,964	1.594	22,414
1.1.0835.20	Physical Education - LD	1,089	.883	12,416
1.1.0835.30	Physical Education - UD	718	.583	8,198
1.1.1501.20	English - LD	2,288	1.856	26,099
1.1.1501.30	English - UD	2,179	1.768	24,861
1.1.1501.50	English - GD	858	.696	9,787
1.1.1701.20	Mathematics - LD	1,989	1.613	22,682
1.1.1701.30	Mathematics - UD	463	.376	5,287
1.1.1902.20	Physics - LD	705	.572	8,043
1.1.1902.30	Physics - UD	1,303	1.057	14,863
1.1.1905.20	Chemistry - LD	1,454	1.180	16,593
1.1.1905.30	Chemistry - UD	3,828	3.105	43,662
1.1.2204.20	Economics - LD	1,612	1.308	18,393
1.1.2204.30	Economics - UD	775	.629	8,845
1.1.2204.50	Economics - GD	451	.366	5,146
1.1.2205.20	History - LD	1,945	1.578	22,190
1.1.2205.30	History - UD	1,979	1.606	22,583
1.1.2205.50	History - GD	809	.656	9,224
1.4.0000	Extension Instruction for Credit	1,341	1.088	15,299
2.1.0500	Bureau of Business Research	1,200	.974	13,696
2.2.0401	Waterfowl Migration Study	422	.342	4,809
2.2.0402	Mutation Recurrence Project	405	.329	4,626
3.1.0000	Public Service, Community Education	210	.170	2,390
4.1.0000	Libraries - Central Service	12,100	9.817	138,045
4.2.0000	Museums and Galleries	1,600	1.298	18,252
4.4.0000	Computing Support	1,300	1.055	14,835
4.6.0000	Dean, Arts and Sciences	1,400	1.136	15,974
5.1.7110	Student Services	700	.568	7,987
5.1.7120	Sterling Lecture Series	600	.487	6,848
5.1.7140	Student Union	500	.406	5,709
5.1.7200	Intercollegiate Athletics	3,000	2.434	34.241
5.2.0000	Remedial Instruction Skills	600	.487	6,848
5.3.0000	Counseling, Career Guidance	700	.568	7,987
5.4.0000	Financial Aid Administration	600	.487	6,848
5.5.7310	Food Services	700	.568	7,987
5.5.7320	Health Services	600	.487	6,848
5.5.7330	Housing Services	36,300	29.452	414,150
5.5.7340	Retail Services	600	.487	6,848

*Lower Division
**Upper Division
***Graduate

TABLE 25

CAPITAL COST OF BUILDINGS AND LAND IMPROVEMENTS ALLOCATED TO ACTIVITY CENTERS (Continued)

Code	Activity Center Name	Assignable Square Feet	Percent of ASF	Capital Cost of Buildings
5.6.0000	Student Admissions and Records	1,000	.811	$ 11,404
6.1.8110	Executive Management	600	.487	6,848
6.1.8120	Planning and Programming	800	.649	9,126
6.2.8210	Financial Operations	700	.568	7,987
6.3.8160	Computing Center	700	.568	7,987
6.4.8170	Environmental Health and Safety	1,500	1.217	17,113
6.4.8251	Mail and Distribution	600	.487	6,848
6.4.8260	Transportation Services	1,800	1.460	20,530
6.5.8310	Utilities	4,800	3.894	54,756
6.7.8175	Alumni Office	1,600	1.298	18,252
6.7.8180	Public Relations	400	.325	4,570
	TOTALS	123,253	100.000	$1,406,187

CHAPTER V

SECTION E - COLLECTING ASSIGNABLE SQUARE FEET DATA

The procedures recommended for collecting assignable square feet data can be summarized in the following steps:*

Step 1: Conduct an inventory of all assignable space at the institution.

The development of criteria for classifying, defining, and measuring room areas is basic to collecting room data. Several kinds of square footage exist in buildings and it is imperative that the users of such data have a common understanding of these types of space when using the room data for various purposes. Analysis of the space within a given building involves three different building area measurements: gross area, assignable area, and nonassignable area. Figure 14 and the brief discussion that follows indicate the relationship of these terms to each other and to other space classification terms.

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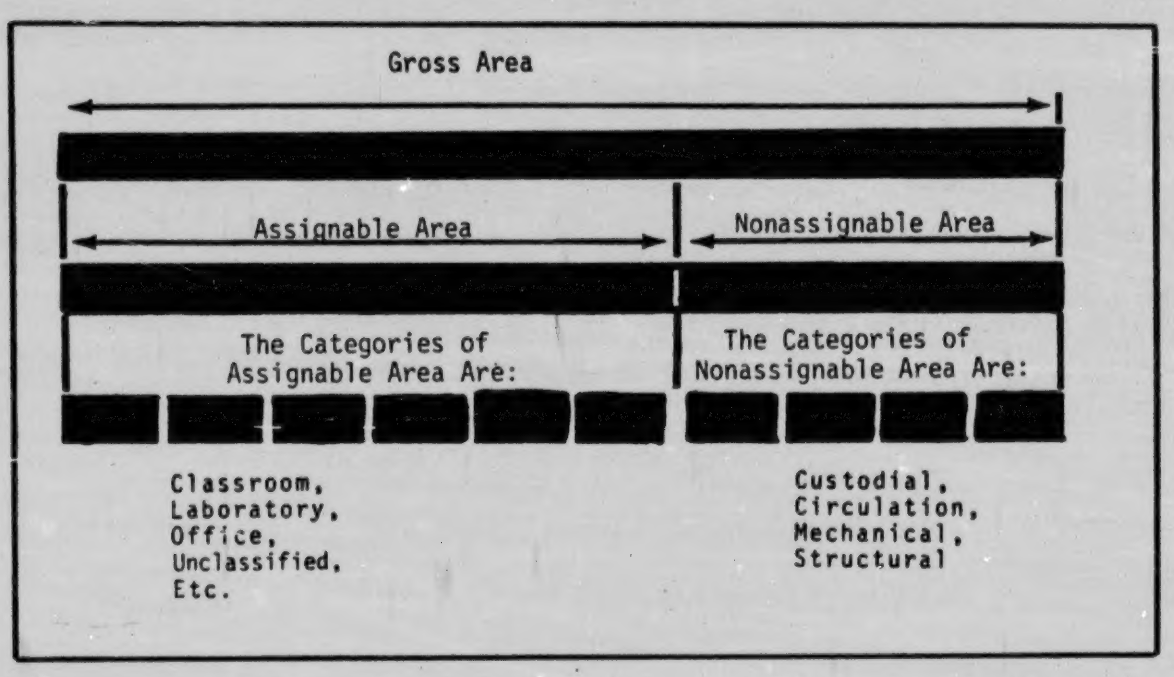
*These procedures stem from a more complete set of space inventory procedures contained in the Higher Education Facilities Inventory and Classification Manual (Romney, 1972). The reader is referred to that document for a more comprehensive discussion of the process.

FIGURE 14: TYPES OF BUILDING SPACE


Gross Area
Assignable Area
Nonassignable Area
The Categories of Assignable Area Are:
The Categories of Nonassignable Area Are:
Classroom,
Laboratory,
Office,
Unclassified,
Etc.
Custodial,
Circulation,
Mechanical,
Structural

As indicated in Figure 14,

Gross Area = Assignable Area + Nonassignable Area

where

Gross Area = the sum of all floor areas of a building based on exterior dimensions.

Assignable Area = the sum of all areas of all floors of a building assigned or available for assignment to an occupant; includes every kind of space functionally usable by the occupant.

Nonassignable Area = the sum of the circulation, custodial, mechanical, and structural areas.

The assignable area, measured in assignable square feet, is recommended as a parameter for allocating the capital costs of buildings and land improvements to activity centers.

The Higher Education Facilities Inventory and Classification Manual defines the categories of assignable area, displayed in Table 26, and sets forth procedures for collecting assignable area data for the room use categories.

TABLE 26

MAJOR ROOM USE CATEGORIES

100	Classroom Facilities
210	Class Laboratory
220	Special Class Laboratory
230	Individual Study Laboratory
250	Nonclass Laboratory
300	Office Facilities
400	Study Facilities
500	Special Use Facilities
600	General Use Facilities
700	Supporting Facilities
800	Health Care Facilities
900	Residential Facilities
000	Unclassified Facilities

In essence this step recommends conducting a complete and detailed facilities inventory and then aggregating the information in Step 3 into a single assignable area figure for each activity center listed in Table 1. When completing the inventory the user should note that some rooms or groups of rooms have multiple uses, for example, as both offices and art studios. Room use categories and codes should be selected for each room on the basis of the primary use of the room. For example, a dining room used as a class laboratory (210) for training students in a food service instructional program as well as for a food facility (630) for students and/or the public at large, should be coded 210 if its primary use is for instructional purposes.

If this step is performed in accordance with the procedures specified in the facilities manual written by NCHEMS, the result will be an inventory of all assignable space at the institution. Moreover, the assignable areas will be classified not only by the standard room use categories and codes but also in terms of the institution's organizational units which use the space.

Step 2: Distribute the assignable areas to the appropriate activity centers.

This step reclassifies the assignable areas from the institution's organizational unit structure to the appropriate categories of the standard activity center structure. The distribution should be on the basis of the primary activities conducted in the room. For example, a class laboratory (210) or group of class laboratories may house primarily instructional activities (1.1.XXXX.XX) but may also from time to time house an individual research project (2.2.XXXX). These procedures stipulate that the room or group of rooms should be assigned entirely to the instructional activity center (1.1.XXXX.XX).

There are cases when the primary activities of the room or group of rooms are not obvious and proration to different activity centers must be considered. Note, however, that proration to multiple activity centers should be performed only when the room or group of rooms cannot be assigned to an activity center on the basis of the primary activities conducted therein. The following procedures indicate how to prorate between programs (X.X), between disciplines (0.0.XXXX), and between course levels (0.0.0000.XX).

1. Proration to Programs

Proration to multiple programs for scheduled rooms should be performed on the basis of scheduled use, for example, weekly room hours (WRH). A second option is to prorate the area between the programs on the basis of the full-time equivalency of the occupants.

If, for example, a series of classrooms having a combined assignable area of 20,000 assignable square feet are used in the following way:

a.	Instruction	(1 1.XXXX)	20 WRH
b.	Community Education	(3.1.XXXX)	7 WRH
c.	Supplementary Education	(5.2.XXXX)	6 WRH
			TOTAL = 33 WRH

then the proration to the various programs would be as follows:

a.	Instruction	(1.1.XXXX):	$\left[\frac{20}{33}\right]$ X (20,000) = 12,121.2 ASF
b.	Community Education	(3.1.XXXX):	$\left[\frac{7}{33}\right]$ X (20,000) = 4,242.4 ASF
c.	Supplementary Education	(5.2.XXXX):	$\left[\frac{6}{33}\right]$ X (2C,000) = 3,636.4 ASF
			TOTAL = 20,000 ASF

For all unscheduled rooms or groups of rooms that house the activities of multiple programs, prorate the assignable area on an appropriate basis such as the number of service months by program of those individuals assigned to the room or group of rooms.

2. Proration to Disciplines

Proration to multiple disciplines for scheduled rooms should be performed on the basis of the scheduled use of the room, for example, weekly room hours. An example demonstrating this technique is similar to the example used above. If a series of class laboratories having a combined assignable area of 15,000 assignable square feet are used in the following way:

a.	Inorganic Chemistry	(1.1.1906)	11 WRH
b.	Organic Chemistry	(1.1.1907)	9 WRH
c.	Pharmaceutical Chem.	(1.1.1910)	4 WRH
		TOTAL =	24 WRH

then the proration to the various disciplines would be as follows:

a.	Inorganic Chemistry	(1.1.1906):	$\left[\frac{11}{24}\right] \times (15,000) = 6,875$ ASF
b.	Organic Chemistry	(1.1.1907):	$\left[\frac{9}{24}\right] \times (15,000) = 5,625$ ASF
c.	Pharmaceutical Chem.	(1.1.1910):	$\left[\frac{4}{24}\right] \times (15,000) = 2,500$ ASF
			TOTAL =15,000 ASF

For all unscheduled rooms or group of rooms that house the activities of more than one discipline, prorate the assignable area on an appropriate basis, such as the number of service months by discipline of those individuals assigned to the room or group of rooms.

Finally, in the initial inventory procedure all classrooms were to be coded with the discipline code 0000 but were to be assigned to an appropriate subprogram (for example, 1.1, 1.2, or 5.1) based on primary use of the room. However, now that assignable square feet are to be used as a parameter for allocating capital costs to activity centers, classroom area will need to be prorated to the appropriate disciplines as specified previously and course levels as specified below.

3. Proration to Course Levels

Proration to multiple course levels follows the procedures outlined above and should be performed on the basis of the scheduled use of the room, for example, weekly room hours. No example is given here because it is similar to those illustrated previously.

For all unscheduled rooms or group of rooms that house the activities of more than one course level, prorate the assignable area on an appropriate basis, such as the service months by course level of those individuals assigned to the room or group of rooms.

Step 3: Aggregate the assignable area into a single assignable area figure for each activity center.

SECTION F - CALCULATING AN ANNUAL CAPITAL COST FOR EQUIPMENT

The procedures recommended to calculate an annual capital cost for capital equipment owned or leased by the institution can be summarized as follows:*

Step 1: Determine the capital equipment inventory, adhering to these specific guidelines:

- Expected service life that exceeds two years.
- Acquistion cost of $500 or more.
- Value equipment items at original cost.
- Consolidate similar capital equipment items.
- Exclude noncapital equipment.
- Exclude fixed equipment.
- Ignore source of funds.
- Include only those capital equipment items purchased within the last 10-year period.

Step 2: Calculate the annual charge for depreciation by multiplying 10% times the base period inventory as determined in Step 1. Do not adjust the inventory for inflation.

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*If the institutions maintain equipment records for each activity center or for similar groups of activity centers, then a separate capital equipment cost should be calculated for each activity center. These separate calculations would be made in lieu of allocation. However, it was found in the pilot test that generally such detailed records do not exist. Therefore, a single cost center for all equipment utilized within the institution can be used for calculating this cost.

Step 3: Calculate the annual interest foregone on the institution's total investment in capital equipment by multiplying 8% times the base period inventory as determined in Step 1. Do not adjust the inventory for inflation nor for prior year's depreciation.

Step 4: Segregate the annual rental payments for capital equipment leased by the institution. This step should have been completed earlier as part of the account crossover (see Chapter III).

Step 5: Sum the results of Steps 2, 3, and 4 and transfer this figure (the annual capital cost for equipment) to the activity center 6.9, Capital Cost--Equipment.

Step 6: Allocate the costs in activity center 6.9 to all users of institutionally owned or leased capital equipment. The recommended allocation parameter is total direct costs, discussed in Chapter IV.

Figure 15 illustrates the steps for calculating the annual capital cost for equipment. Table 27 displays the annual capital cost for equipment as determined through the recommended procedures.

FIGURE 15: ANNUAL CAPITAL COST FOR EQUIPMENT

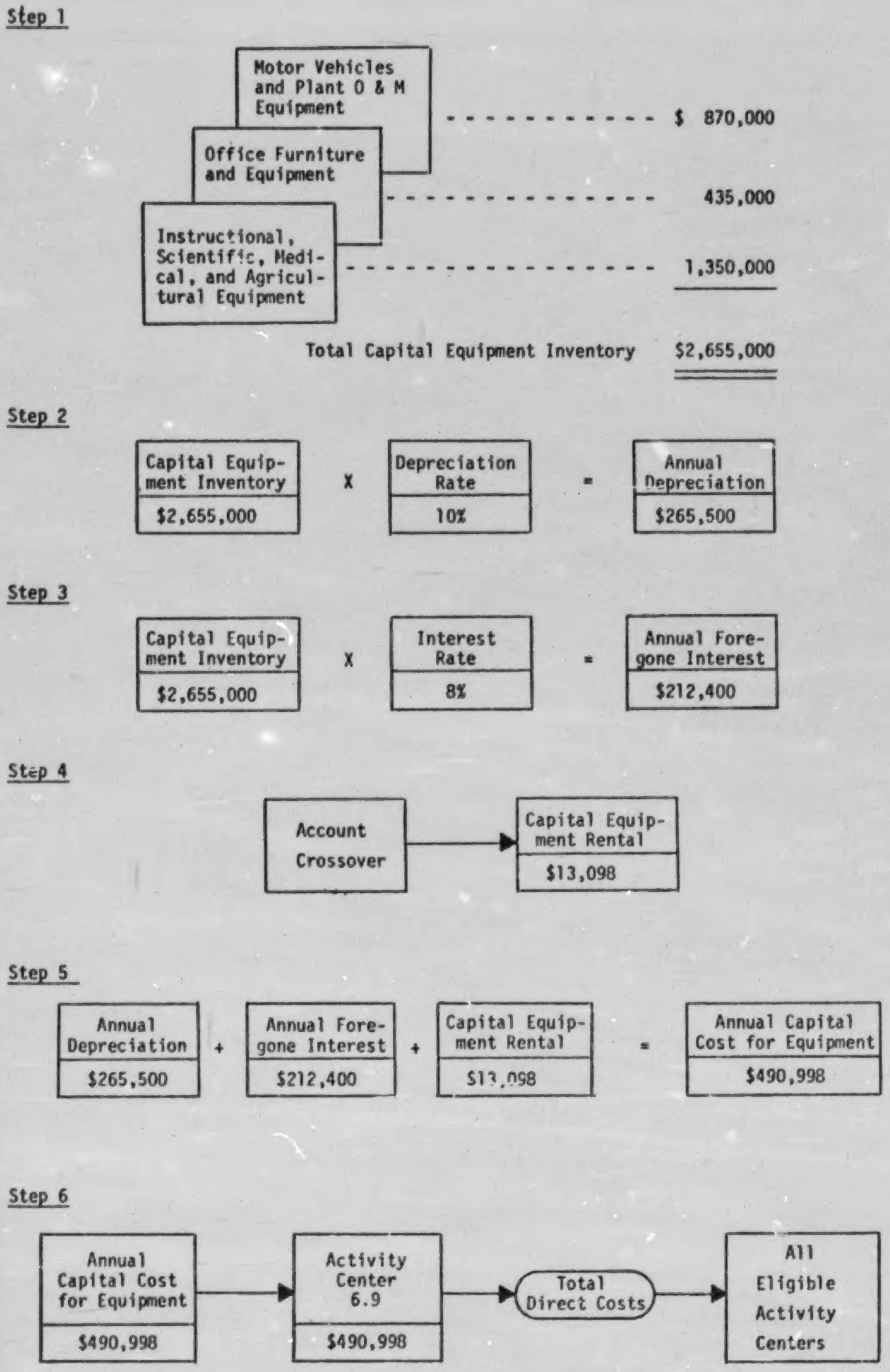

Step 1
Motor Vehicles and Plant O & M Equipment
$ 870,000
Office Furniture and Equipment
435,000
Instructional, Scientific, Medical, and Agricultural Equipment
1,350,000
Total Capital Equipment Inventory
$2,655,000
Step 2
Capital Equipment Inventory
$2,655,000
X
Depreciation Rate
10%
=
Annual Depreciation
$265,500
Step 3
Capital Equipment Inventory
$2,655,000
X
Interest Rate
8%
=
Annual Foregone Interest
$212,400
Step 4
Account Crossover
Capital Equipment Rental
$13,098
Step 5
Annual Depreciation
$265,500
+
Annual Foregone Interest
$212,400
+
Capital Equipment Rental
$13,098
=
Annual Capital Cost for Equipment
$490,998
Step 6
Annual Capital Cost for Equipment
$490,998
Activity Center 6.9
$490,998
Total Direct Costs
All Eligible Activity Centers

TABLE 27

CAPITAL COST OF EQUIPMENT ALLOCATED TO ACTIVITY CENTERS

Code	Activity Center Name	Total Direct Costs	%	Capital Cost-Equipment
1.1.0401.20	Biology - LD*	$ 33,012	.840	$ 4,124
1.1.0402.20	Botany - LD	15,387	.391	1,920
1.1.0402.30	Botany - UD**	23,966	.610	2,995
1.1.0402.50	Botany - GD***	20,795	.529	2,597
1.1.0407.20	Zoology - LD	28,442	.724	3,555
1.1.0407.30	Zoology - UD	28,908	.735	3,609
1.1.0407.50	Zoology - GD	18,091	.460	2,259
1.1.0502.20	Accounting - LD	7,608	.194	953
1.1.0502.30	Accounting - UD	18,811	.479	2,352
1.1.0502.50	Accounting - GD	17,119	.436	2,141
1.1.0509.20	Marketing - LD	5,735	.146	717
1.1.0509.30	Marketing - UD	20,812	.530	2,602
1.1.0509.50	Marketing - GD	22,730	.578	2,838
1.1.0802.20	Elementary Education - LD	12,837	.327	1,606
1.1.0802.30	Elementary Education - UD	62,111	1.580	7,758
1.1.0802.50	Elementary Education - GD	71,947	1.830	8,985
1.1.0803.20	Secondary Education - LD	19,472	.495	2,430
1.1.0803.30	Secondary Education - UD	52,093	1.325	6,506
1.1.0803.50	Secondary Education - GD	106,380	2.710	13,291
1.1.0835.20	Physical Education - LD	41,031	1.044	5,126
1.1.0835.30	Physical Education - UD	11,805	.300	1,473
1.1.1501.20	English - LD	45,989	1.170	5,745
1.1.1501.30	English - UD	69,636	1.772	8,701
1.1.1501.50	English - GD	57,193	1.455	7,144
1.1.1701.20	Mathematics - LD	52,309	1.331	6,535
1.1.1701.30	Mathematics - UD	19,638	.500	2,455
1.1.1902.20	Physics - LD	17,983	.458	2,249
1.1.1902.30	Physics - UD	42,280	1.076	5,283
1.1.1905.20	Chemistry - LD	28,718	.731	3,589
1.1.1905.30	Chemistry - UD	51,542	1.311	6,437
1.1.2204.20	Economics - LD	37,578	.956	4,694
1.1.2204.30	Economics - UD	29,807	.758	3,722
1.1.2204.50	Economics - GD	25,752	.655	3,216
1.1.2205.20	History - LD	42,153	1.072	5,264
1.1.2205.30	History - UD	54,192	1.379	6,771
1.1.2205.50	History - GD	47,758	1.215	5,966
1.4.0000	Extension Instruction for Credit	94,959	2.419	11,863
2.1.0500	Bureau of Business Research	49,500	1.259	6,182
2.2.0401	Waterfowl Migration Study	47,800	1.216	5,971
2.2.0402	Mutation Recurrence Project	36,315	.924	4,537
3.1.0000	Public Service, Community Education	12,949	.329	1,615
3.1.0502	Community Education, Accounting	1,364	.035	172
3.1.0509	Community Education, Marketing	980	.025	123
3.1.0802	Community Education, Elementary Education	1,553	.040	197
3.1.1902	Community Education, Physics	4,420	.112	550
3.2.0000	Public Service, Community Service	8,990	.229	1,124
3.2.0502	Community Service, Accounting	1,818	.046	226
3.2.1501	Community Service, English	1,707	.043	211
3.2.2205	Community Service, History	1,523	.039	192
4.1.0000	Libraries, Central Service	35,265	.897	4,404
4.1.0050	Libraries, General Support	139,030	3.537	17,367
4.1.0060	Libraries, General Production	53,854	1.370	6,727
4.2.0000	Museums and Galleries	21,262	.541	2,656
4.4.0000	Computing Support	42,252	1.075	5,278
4.6.0000	Dean, Arts and Sciences	107,000	2.722	13,365

*Lower Division
**Upper Division
***Graduate Division

TABLE 27

CAPITAL COST OF EQUIPMENT ALLOCATED TO ACTIVITY CENTERS (Con't.)

Code	Activity Center Name	Total Direct Costs	%	Capital Cost-Equipment
4.6.0401	Academic Administration, Biology	$ 20,144	.513	$ 2,519
4.6.0402	Academic Administration, Botany	24,621	.626	3,074
4.6.0407	Academic Administration, Zoology	22,382	.569	2,794
4.6.0500	Academic Administration, Dean of Bus. and Econ.	44,510	1.132	5,558
4.6.0502	Academic Administration, Accounting	5,455	.139	683
4.6.0509	Academic Administration, Marketing	5,879	.150	737
4.6.0800	Academic Administration, Dean of Education	41,432	1.054	5,175
4.6.0802	Academic Administration, Elementary Education	18,635	.474	2,327
4.6.0803	Academic Administration, Secondary Education	13,669	.348	1,709
4.6.0835	Academic Administration, Physical Education	6,179	.157	771
4.6.1501	Academic Administration, English	17,069	.434	2,131
4.6.1701	Academic Administration, Mathematics	13,379	.340	1,669
4.6.1902	Academic Administration, Physics	13,261	.337	1,655
4.6.1905	Academic Administration, Chemistry	14,735	.375	1,841
4.6.2204	Academic Administration, Economics	10,890	.277	1,360
4.6.2205	Academic Administration, History	22,850	.581	2,853
4.6.4900	Academic Administration, Interdisciplinary Studies	39,621	1.008	4,949
4.7.0401	Course & Curriculum Development, Biology	4,476	.114	560
4.7.0402	Course & Curriculum Development, Botany	8,953	.228	1,120
4.7.0802	Course & Curriculum Development, Elementary Ed.	7,765	.198	972
4.7.0835	Course & Curriculum Development, Physical Ed.	1,685	.043	211
4.7.1501	Course & Curriculum Development, English	3,414	.087	427
4.7.1701	Course & Curriculum Development, Mathematics	3,935	.100	491
4.7.1905	Course & Curriculum Development, Chemistry	1,473	.037	182
4.7.2204	Course & Curriculum Development, Economics	907	.023	113
4.7.2205	Course & Curriculum Development, History	4,570	.116	570
5.1.7110	Student Services	55,750	1.418	6,962
5.1.7120	Sterling Lecture Series	15,415	.392	1,925
5.1.7140	Student Union	45,700	1.163	5,710
5.1.7200	Intercollegiate Athletics	271,220	6.900	33,900
5.2.0000	Remedial Instruction Skills	28,550	.726	3,565
5.2.0070	FORTRAN Programming	26,800	.682	3,349
5.3.0000	Counseling, Career Guidance	46,160	1.174	5,764
5.4.0000	Financial Aid Administration	31,190	.794	3,899
5.5.7310	Food Services*	114,580	2.915	14,313
5.5.7320	Health Services	70,400	1.791	8,794
5.5.7330	Housing Services*	81,800	2.081	10,218
5.5.7340	Retail Services*	34,450	.876	4,301
5.6.0000	Student Admissions and Records	64,203	1.633	8,018
6.1.8110	Executive Management	122,130	3.107	15,255
6.1.8120	Planning and Programming	35,980	.915	4,493
6.1.8130	Legal Services	6,750	.172	845
6.2.8210	Financial Operations	49,700	1.264	6,206
6.3.8160	Computing Center	89,787	2.284	11,214
6.4.8170	Environmental Health and Safety	30,400	.773	3,795
6.4.8251	Mail and Distribution	3,460	.088	432
6.4.8252	Telephone and Telegraph	8,245	.210	1,031
6.4.8253	Printing and Reproduction	18,600	.473	2,322
6.4.8260	Transportation Services	21,300	.542	2,661
6.5.8310	Utilities	69,800	1.776	8,720
6.5.8320	Building Maintenance	78,110	1.987	9,756
6.5.8330	Grounds Maintenance	30,294	.771	3,786
6.5.8340	Custodial Services	96,940	2.466	12,108
6.5.8390	General Insurance	14,688	.374	1,836
6.7.8175	Alumni Office	29,900	.738	3,624
6.7.8180	Public Relations	26,800	.682	3,349
6.7.8181	Community Relations, Memberships	16,218	.413	2,028
	TOTALS	$3,931,375	100.000	$490,998

*Note: Inventories and cost of goods sold have been excluded from these accounts.

CHAPTER VI

SUPPORT COST ALLOCATION

SECTION A - DESIGNATION OF ACTIVITY CENTERS

Up to this point in the costing process, all activity centers have been viewed as if they were independent. That is, all activity centers have been assigned direct costs and capital costs regardless of where they reside in the Program Classification Structure. In full costing certain relationships are established between activity centers. Specifically, the following distinction among activity centers needs to be made:

> Support Activity Centers: Those activity centers whose outcomes are necessary or vital for the successful operation of other programs within the institution but do not contribute directly to the accomplishment of the primary missions of the institution.

> Final Cost Objectives: Those activity centers whose outcomes are related directly to the accomplishment of the primary missions of the institution or do not demonstrate a vital support function for other programs within the institution. Final cost objectives may or may not be eligible to receive costs from support activity centers.

Table 28 shows the recommended designations of support activity centers and final cost objectives. The designations of activity centers were made by the task force based upon the analysis of the pilot test data. (See

Summary of the Analyses of the Cost Finding Principles Pilot Test Data [Topping, Weldon, and Kirschling, 1974] for a complete report of the findings.) While arguments can be made for specifying libraries as a final cost objective or student development as a support activity center, the task force felt the following designations would be acceptable to the majority of colleges and universities. Any institution conducting an internal cost study with no intention of exchanging information with another institution should make adjustments to the recommended designations as needed.

TABLE 28

DESIGNATION OF ACTIVITY CENTERS

Activity Center Code	Activity Center Name	Support Activity Center	Final Cost Objectives		Comments
			Eligible*	Not Eligible**	
1.1.XXXX.XX	General Academic Instruction - by HEGIS discipline		X		
1.2.XXXX.XX	Occupational and Vocational Instruction - by HEGIS discipline		X		
1.3.XXXX.XX	Special Session Instruction - by HEGIS discipline		X		Special session instruction should be costed as a separate final cost objective if the data is available to make the necessary allocations. The alternative is to fold special session costs into regular session costs during the direct cost procedures.
1.4.XXXX.XX	Extension Instruction - by HEGIS discipline		X		
2.1.XXXX	Institutes and Research Centers - by HEGIS discipline		X		
2.2.XXXX	Individual or Project Research - by HEGIS discipline		X		
3.1.XXXX	Community Education - by HEGIS discipline		X		
3.2.XXXX	Community Service - by HEGIS discipline		X		
3.3	Cooperative Extension Service		X		
3.4.XXXX	Patient Services - by HEGIS discipline		X		

*Eligible to receive support costs.

**Not eligible to receive support costs.

TABLE 28

DESIGNATION OF ACTIVITY CENTERS (Con't.)

Activity Center Code	Activity Center Name	Support Activity Center	Final Cost Objective		Comments
			Eligible*	Not Eligible**	
3.5.XXXX	Specialized Training Programs by HEGIS discipline		X		
4.1.XX00	Libraries	X			Excludes departmental libraries which are treated separately as part of the direct cost procedures.
4.2	Museums and Galleries		X		Excludes departmental museums and galleries which are treated separately as part of the direct cost procedures.
4.3	Audio/Visual Services	X			
4.4	Computing Support	X			
4.5.XXXX	Ancillary Support - by HEGIS discipline	X			Excludes teaching hospitals which are categorized separately and coded 9.0.
4.6.XXXX	Academic Administration and Personnel Development - by HEGIS discipline	X			
4.7.XXXX	Course and Curriculum Development - by HEGIS discipline	X			
5.1.7100	Student Development		X		
5.1.7200	Intercollegiate Athletics		X		Intercollegiate Athletics are eligible to receive support costs if in fact they were not charged for the identical support services in the institution's accounting system.
5.2	Supplementary Educational Services	X			
5.3	Counseling and Career Guidance	X			
5.4	Financial Aid Administration	X			

*Eligible to receive support costs.

**Not eleigible to receive support costs.

TABLE 28

DESIGNATION OF ACTIVITY CENTERS (Con't.)

Activity Center Code	Activity Center Name	Support Activity Center	Final Cost Objectives		Comments
			Eligible*	Not Eligible**	
5.5	Student Support		X		Student Support activity centers are eligible to receive support costs if in fact they were not charged for the identical support services in the institution's accounting system.
5.6	Student Admissions and Records	X			In the Program Classification Structure the function Student Admissions and Records is included in subprogram 6.3, General Administrative Services.
6.1	Executive Management	X			
6.2	Fiscal Operations	X			
6.3	General Administrative Services	X			Excludes the function Student Admissions and Records which is categorized separately and coded 5.6.
6.4	Logistical Services	X			
6.5	Physical Plant Operations	X			
6.6	Faculty and Staff Services		X		The Faculty and Staff Services are eligible to receive support costs if in fact they were not charged for the identical support services in the institution's accounting system.
6.7	Community Relations	X			
6.8	Capital Cost - Buildings and Land Improvements	X			
6.9	Capital Cost - Equipment	X			

*Eligible to receive support costs.

**Not eligible to receive support costs.

TABLE 28

DESIGNATION OF ACTIVITY CENTERS (Con't.)

Activity Center Code	Activity Center Name	Support Activity Center	Final Cost Objective		Comments
			Eligible*	Not Eligible**	
7.0	Independent Operations			X	Since Independent Operations function similarly to commercial businesses, it is assumed that charges are made in the institution's accounting system for any support services from which they benefit.
8.1	Scholarships			X	This activity center records only the amounts of aid actually distributed to students and as such is ineligible to receive support costs.
8.2	Fellowships			X	This activity center records only the amounts of aid actually distributed to students and as such is ineligible to receive support costs.
9.0	Hospitals	X			It is recognized that hospitals function as a support activity; however, no procedures will be recommended for allocating these costs to the appropriate final cost objectives.

*Eligible to receive support costs.

**Not eligible to receive support costs.

CHAPTER VI

SECTION B - ALLOCATION METHODS

Support cost allocation refers to the process of transferring the costs lodged in the support activity centers to the final cost objectives. The objective of the allocation process is to accomplish this transfer of costs so as to reflect most accurately the actual use of resources by activity centers that receive services from other activity centers. Therefore, in most cases, the methods to be used in the allocation process rely on parameter data that have a high correlation with the level of services provided to the activity centers using those services. In a few instances, support costs may be allocated on a direct charge basis, that is, on actual usage data rather than on highly correlated parameter data. Actual usage data, if available, always should be used in preference to parameter data.

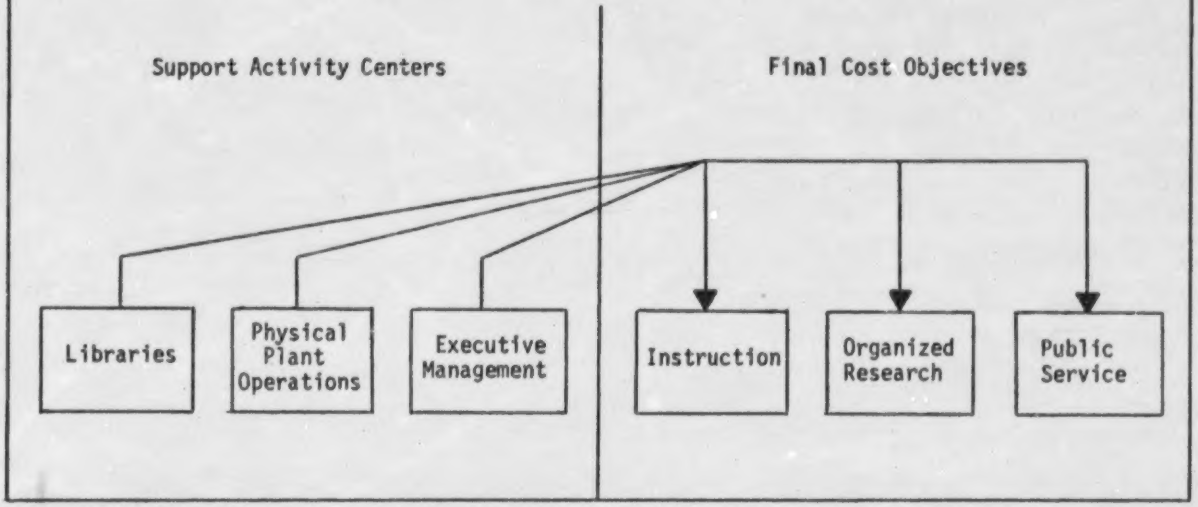
Two allocation methods were examined in the pilot test--direct allocation and the step-down, or recursive, technique.

Direct Allocation Method

The direct allocation method is based on the premise that the services produced by all support activity centers contribute directly and exclusively to final cost objectives. Therefore, the costs associated with support activities are not allocated to other support activities as an intermediate step. The direct allocation method is illustrated in Figure 16.

FIGURE 16

DIRECT ALLOCATION METHOD

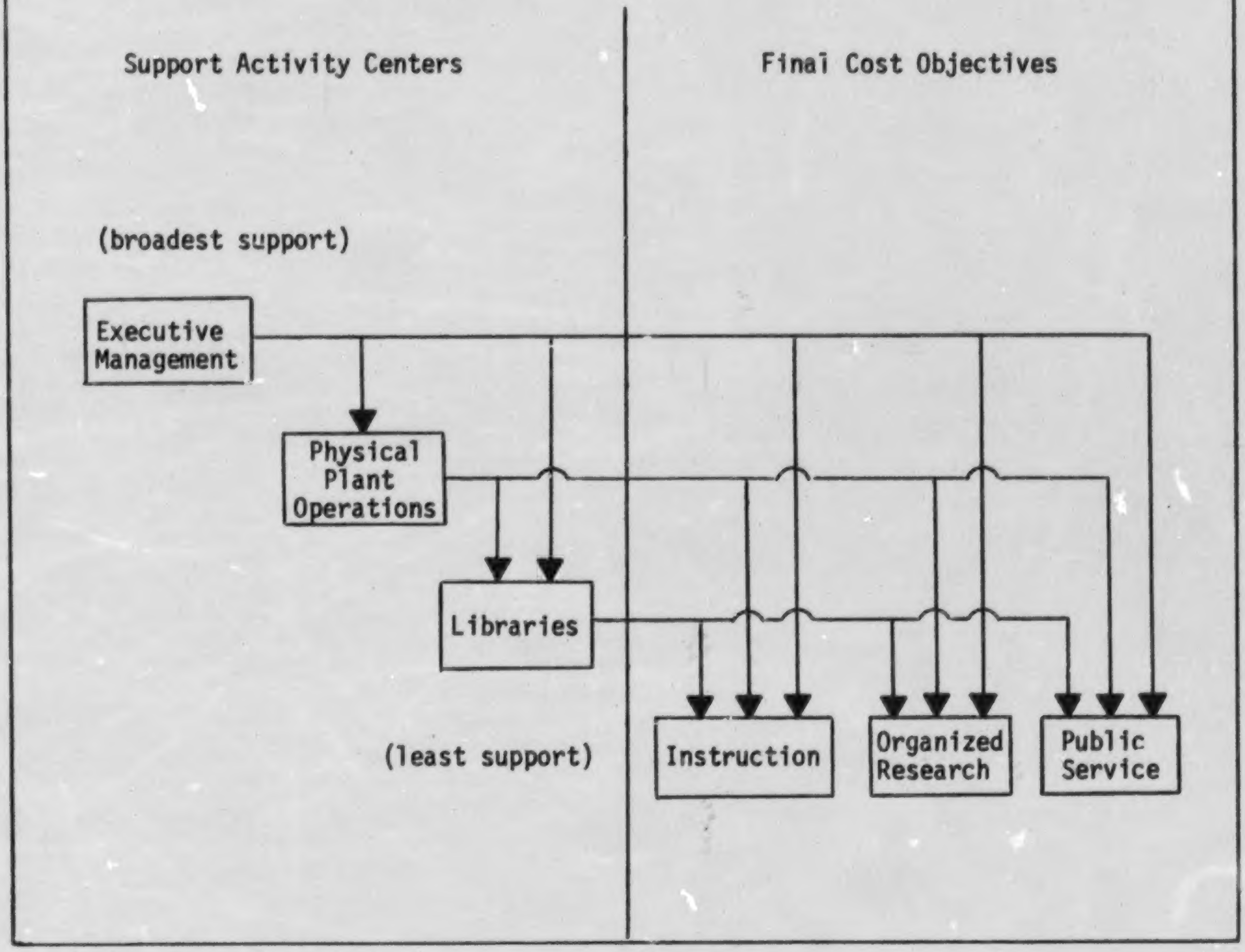

Support Activity Centers
Final Cost Objectives
Libraries
Physical Plant Operations
Executive Management
Instruction
Organized Research
Public Service

Recursive or Step-Down Method

The recursive allocation technique, unlike the direct method, makes allowances for the contribution of costs related to support activities to other support activity centers. A necessary requirement of the recursive technique is to identify and order all support activity centers according to the time sequence in which the allocations are to occur. The underlying principle for this ordering is that those support activity centers assumed to provide the broadest support to all other activity centers are allocated first, those that provide the next broadest support are allocated second, and so on. The step-like allocations continue until all of the support activity centers have been zeroed out, that is, until all costs have been completely allocated to the final cost objectives. Furthermore, once the costs of a support activity center have been allocated, no further allocations are made back to it. The recursive allocation method is illustrated in Figure 17.

FIGURE 17

RECURSIVE ALLOCATION METHOD


Support Activity Centers
Final Cost Objectives
(broadest support)
Executive Management
Physical Plant Operations
Libraries
(least support)
Instruction
Organized Research
Public Service

Task Force Recommendation

In examining the data from the pilot test institutions, it was found that use of the recursive method did not provide results significantly different from the direct method. The direct allocation method is recommended for the IEP pilot test because it is the simplest and most straightforward to implement. However, the task force urges NCHEMS to examine this question further in the IEP pilot test.*

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*It should be noted that the capital costs for buildings and equipment already have been allocated to all eligible activity centers--both support and final. In effect, these costs have been allocated using the recursive technique since a portion of these costs will be reallocated as a part of the receiving support activity centers.

CHAPTER VI

SECTION C - ALLOCATION PARAMETERS

Ideally, the costs lodged in a support activity center should be allocated to final cost objectives on the basis of actual usage data.* An example of an academic support service that approaches this ideal in many institutions is the service provided by the computer center. However, actual usage records are not maintained for the majority of the support activity centers. Therefore, it is necessary to determine one or more allocation parameters that clearly reflect the actual use of those services provided by the support activity center.

The statistical data constituting an allocation parameter must meet two important requirements. First, the parameter data should be in a format that can be mapped into the activity center structure, and second, it should be at a level of detail to support the intended allocation. For example, if the intention is to allocate the costs of the physical plant operations to each discipline on the basis of assignable square feet, it is essential to be able to map the physical facilities inventory to the activity center structure at that specified level of detail.

A word of caution is in order here. Parameter data should be adjusted to reflect the outcomes of the direct cost studies (see Chapter IV). For example, if a faculty activity analysis were conducted and resulted in adjustments to faculty compensation, these adjustments should be reflected in the parameter data.

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*It is not reasonable to expect actual usage data for all support activity centers. For example, it is difficult to envision direct charges for executive management.

The Cost Finding Principles task force considered a number of allocation parameters during the pilot test. These included:

- total direct costs
- faculty (instruction/research/public service personnel) compensation
- staff (all other personnel) compensation
- supplies and services expenditures
- full-time equivalent faculty
- full-time equivalent staff
- headcount faculty
- headcount staff
- assignable square feet (owned)
- assignable square feet (leased)
- student credits
- student contact hours
- course enrollments
- faculty contact hours

These parameters represented nearly all of the easily obtainable data originally suggested by the task force for use in support cost allocations. Selection of the recommended parameters was based upon the analysis of the pilot test data, coupled with the judgment of the task force and staff. An overriding concern of the task force was to arrive at an allocation scheme that could be readily implemented by the majority of colleges and universities at the present time.

Definitions for those parameters recommended in the support cost allocations are:

1. Total Direct Costs: Those categories of expenditures assigned directly to activity centers; specifically included are:

    a. Instruction/research/public service personnel compensation.
    b. Administrative/support personnel compensation.
    c. Other staff compensation.
    d. Supplies and services expenditures.

    Specifically excluded from total direct costs are the capital costs of equipment and buildings and scholarships and fellowships. Compensation amounts should reflect any previous adjustments made by an activity analysis or other special study.

2. Instruction/Research/Public Service Personnel Compensation: The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel (as classified under the Fair Labor Standards Act) who have a majority (50% or more) of their activities in 1.0, 2.0, and 3.0 of the PCS.

3. Semester Credit: A unit of measure that represents one student engaged in an instructional activity for a semester for which one credit or fraction thereof is granted toward a degree, diploma, or certificate upon completion of the activity. Total semester credits for a course level within a discipline are calculated by multiplying the course credit value by the number of students enrolled in each course and aggregating the totals by course level. The semester credits parameter is to be interpreted as the semester credit or a comparable instructional unit, for example, the quarter credit for the course. If semester credits are used also for calculating unit costs for exchange purposes, all units must be converted to equivalent semester credits.

4. Assignable Square Feet: The sum of all areas of all floors of a building assigned to or available for assignment to an occupant; includes every type of space functionally usable by the occupant excepting those spaces defined as custodial, circulation, mechanical, and structual areas. The procedures for collecting assignable square feet data are spelled out in Chapter V.

CHAPTER VI

SECTION D ALLOCATION PROCEDURES

The activity center structure is discussed in Chapter II and Appendix B. It is noted that activity centers are defined at various levels of aggregation defined by the PCS. Certain conventions are necessary before the allocations can be made.

1. Within the Instruction program, all allocations are made directly to the 8-digit level of detail. This means that all allocation parameters will need to reflect the subprogram, the discipline, and the course level breakout wherever it is specified in the activity center structure.

2. Activity centers within the 6.0 program, Institutional Support, are disaggregated to the 6-digit level for direct costing. However, for the support cost allocations, they can be aggregated to the 2-digit level and the entire subprogram can be allocated as if it were a single cost pool.

3. Allocate the total dollar amount assigned to an activity center as a single pool, that is, combine all objects of expenditures into one total. However, if one desires to have full costs broken out by object of expenditure (that is, three compensation categories, supplies and services, and two categories of capital costs), the allocation steps will have to be repeated for each object of expenditure.

4. In all cases, a single parameter is recommended to allocate support costs to subprogram, to HEGIS disciplines, and to course levels (where appropriate). It is recognized that multiple parameters could have been recommended to accomplish this task. An example of using multiple parameters would be: allocate the cost of libraries to programs 1.0, 2.0, and 3.0 on the basis of faculty compensation and, within the Instruction program, allocate the cost of libraries to discipline and course levels on the basis of semester credits. The simpler allocation scheme currently is recommended.

5. When allocating support costs to activity centers typically considered to be auxiliary enterprises (for example, food services or a book store), exclude from the allocation parameter the inventories and cost of goods sold. Only the cost of operating the auxiliary enterprise should be included. This avoids allocating an inordinate amount of support costs to these activity centers.

Following is a summary of the support cost allocation procedures. Each of the individual steps is expanded upon in the following pages. Appendix F contains an illustration of the recommended support cost allocations using the sample data previously used in this document.*

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*The recommended allocation parameters are based upon the analysis of the pilot test data. For a complete report of the findings, see Summary of the Analyses of the Cost Finding Principles Pilot Test Data (Topping, Weldon, and Kirschling; 1974).

TABLE 29

SUPPORT COST ALLOCATION PROCEDURES

Step*	Support Activity Center Code	Support Activity Center Name	Recommended Allocation Parameter**	Alternative Allocation Parameter	Activity Centers Receiving Support Costs
1	4.1	Libraries	Instruction/Research/Public Service Compensation (adjusted by a faculty activity analysis)	None Specified	All activity centers within programs 1.0, 2.0, and 3.0.
2	4.3	Audio/Visual Services	Actual Usage Data	Instruction/Research/Public Service Compensation (adjusted by a faculty activity analysis)	All activity centers within program 1.0.
3	4.4	Computing Support	Actual Usage Data	Total Direct Costs	All activity centers within programs 1.0, 2.0, and 3.0
4	4.5.XX	Ancillary Support	Actual Usage Data	Total Direct Costs	All activity centers within programs 1.0, 2.0, and 3.0. This allocation should be made within HEGIS discipline categories wherever appropriate.
5	4.6.XXXX	Academic Administration and Personnel Development	Total Direct Costs	None Specified	All activity centers within programs 1.0, 2.0, and 3.0. This allocation should be made within HEGIS disciplines wherever appropriate.
6	4.7.XXXX	Course and Curriculum Development	Instruction/Research/Public Service Compensation (adjusted by a faculty activity analysis)	None Specified	All activity centers within program 1.0. This allocation should be made within HEGIS disciplines wherever appropriate.
7	5.2	Supplementary Educational Service	Semester Credits	None Specified	All activity centers within program 1.0.
8	5.3	Counseling and Career Guidance	Semester Credits	None Specified	All activity centers within program 1.0.

*It is recommended that the allocations be made by the direct allocation method. Therefore, the order in which the allocations are performed is not significant. The numbering of the steps is used as a convenient reference.

**If the recommended allocation parameter is unavailable, use the suggested alternative parameter.

TABLE 29

SUPPORT COST ALLOCATION PROCEDURES (Con't.)

Step	Support Activity Center Code	Support Activity Center Name	Recommended Allocation Parameter	Alternative Allocation Parameter	Activity Centers Receiving Support Costs
9	5.4	Financial Aid Administration	Semester Credits	None Specified	All activity centers within program 1.0.
10	5.6	Student Admissions and Records	Semester Credits	None Specified	All activity centers within program 1.0.
11	6.1	Executive Management	Total Direct Costs	None Specified	All final cost objectives eligible to receive support costs.
12	6.2	Fiscal Operations	Total Direct Costs	None Specified	All final cost objectives eligible to receive support costs.
13	6.3	General Administrative Services	Total Direct Costs	None Specified	All final cost objectives eligible to receive support costs.
14	6.4	Logistical Services	Total Direct Costs	None Specified	All final cost objectives eligible to receive support costs.
15	6.5	Physical Plant Operations	Assignable Square Feet	Total Direct Costs	All final cost objectives eligible to receive support costs.
16	6.7	Community Relations	Total Direct Costs	None Specified	All final cost objectives eligible to receive support costs.
17	9.0	Hospitals	No allocation parameter is recommended.		

Allocation Step 1

Activity Centers to be Allocated:	All activity centers within subprogram 4.1, Libraries.
Activity Centers to Receive Support Costs:	All activity centers within Instruction, Research, and Public Service.
Recommended Allocation Parameter:	Instruction/Research/Public Service Personnel Compensation (adjusted by a faculty activity analysis).
Alternative Allocation Parameter:	None Specified.
Comments:	Libraries serving the entire institution should be allocated as a single cost pool. In direct costing, if libraries have been identified by school or college, the allocation of those libraries' costs should be made within those specific groups of disciplines being served.

Allocation Step 2

Activity Centers to be Allocated:	Subprogram 4.3, Audio/Visual Services.
Activity Centers to Receive Support Costs:	All activity centers within the Instruction program.
Recommended Allocation Parameter:	Actual Usage Data, if available.
Alternative Allocation Parameter:	Instruction/Research/Public Service Personnel Compensation (adjusted by a faculty activity analysis).
Comments:	If audio/visual services are charged directly to final cost objectives by the institution's accounting system, these charges should be pulled back into support activity center 4.3 for direct cost displays. For full costing, the allocation of support activity center 4.3 should be made on the basis of the original direct charges.

Allocation Step 3

Activity Centers to be Allocated: Subprogram 4.4, Computing Support.

Activity Centers to Receive Support Costs: All activity centers within Instruction, Research, and Public Service.

Recommended Allocation Parameter: Actual Usage Data, if available.

Alternative Allocation Parameter: Total Direct Costs.

Comments: If computer services are charged directly to final cost objectives by the institution's accounting system, these charges should be pulled back into support activity center 4.4 for direct cost displays. For full costing, the allocation of support activity center 4.4 should be made on the basis of the original direct charges.

Allocation Step 4

Activity Centers to be Allocated:	All activity centers within subprogram 4.5, Ancillary Support.
Activity Centers to Receive Support Costs:	All activity centers within Instruction, Research, and Public Service.
Recommended Allocation Parameter:	Actual Usage Data, if available.
Alternative Allocation Parameter:	Total Direct Costs.
Comments:	Ancillary support centers typically serve a specific group of disciplines. For example, a demonstration school generally is used as a laboratory situation for Education disciplines (0800) or a machine shop is used most often by Engineering disciplines (0900). If this is the case, the allocation of a particular ancillary support center should be made only to those disciplines to which service is rendered.

Allocation Step 5

Activity Centers to be Allocated: All activity centers within subprogram 4.6, Academic Administration and Personnel Development.

Activity Centers to Receive Support Costs: All activity centers within Instruction, Research, and Public Service.

Recommended Allocation Parameter: Total Direct Costs.

Alternative Allocation Parameter: None Specified.

Comments: Academic administration costs are to be identified by discipline during the account crossover. Therefore, each activity center associated with a specific discipline (4.6.XXXX) should be allocated only to those activity centers within Instruction, Research, and Public Service with the identical discipline code. A preliminary allocation needs to be made for all academic administration identified initially at a higher level of aggregation. For example, if the Dean of the Graduate School's office initially was coded 4.6.0000, those costs should be allocated to all disciplines (4.6.XXXX) having graduate programs before the individual discipline costs are allocated. The general rule is to allocate first those activity centers at the highest level of aggregation (for example, the Graduate Dean's office); next, allocate those at an intermediate level of aggregation (for example, the Education Dean's office); and finally, allocate those at the individual discipline level (for example, Elementary Education). In each case the parameter should be Total Direct Costs of those disciplines directly administered.

Allocation Step 6

Activity Centers to be Allocated: All activity centers within subprogram 4.7, Course and Curriculum Development.

Activity Centers to Receive Support Costs: All activity centers within the Instruction program.

Recommended Allocation Parameter: Instruction/Research/Public Service Personnel Compensation (adjusted by a faculty activity analysis).

Alternative: Allocation Parameter: None Specified.

Comments: Course and curriculum development costs are to be identified by discipline during the account crossover. Therefore, each activity center associated with a specific discipline (4.7.XXXX) should be allocated only to those activity centers within Instruction with the identical discipline code.

Allocation Step 7

Activity Centers to be Allocated:	Subprogram 5.2, Supplementary Educational Services.
Activity Centers to Receive Support Costs:	All activity centers within the Instruction program.
Recommended Allocation Parameter:	Semester Credits.
Alternative Allocation Parameter:	None Specified.
Comments:	None.

Allocation Step 8

Activity Centers to be Allocated: Subprogram 5.3, Counseling and Career Guidance.

Activity Centers to Receive Support Costs: All activity centers within the Instruction program.

Recommended Allocation Parameter: Semester Credits.

Alternative Allocation Parameter: None Specified.

Comments: None.

Allocation Step 9

Activity Centers to be Allocated:	Subprogram 5.4, Financial Aid Administration.
Activity Centers to Receive Support Costs:	All activity centers within the Instruction program.
Recommended Allocation Parameter:	Semester Credits.
Alternative Allocation Parameter:	None Specified.
Comments:	This allocation should be made separately for graduate and undergraduate students if two separate offices administer the aid.

Allocation Step 10

Activity Centers to be Allocated: Subprogram 5.6, Student Admissions and Records.

Activity Centers to Receive Support Costs: All activity centers within the Instruction program.

Recommended Allocation Parameter: Semester Credits.

Alternative Allocation Parameter: None Specified.

Comments: None.

Allocation Step 11

Activity Centers to be Allocated:	All activity centers within subprogram 6.1, Executive Management, specifically Executive Direction (6.1.8110), Planning and Programming (6.1.8120), and Legal Services (6.1.8130).
Activity Centers to Receive Support Costs:	All final cost objectives eligible to receive support costs (see Table 28).
Recommended Allocation Parameter:	Total Direct Costs.
Alternative Allocation Parameter:	None Specified.
Comments:	None.

Allocation Step 12

Activity Centers to be Allocated:	All activity centers within subprogram 6.2, Fiscal Operations, specifically Fiscal Control (6.2.8140), Investments (6.2.8150), and Financial Operations (6.2.8210).
Activity Centers to Receive Support Costs:	All final cost objectives eligible to receive support costs.
Recommended Allocation Parameter:	Total Direct Costs.
Alternative Allocation Parameter:	None Specified.
Comments:	None.

Allocation Step 13

Activity Centers to be Allocated:	All activity centers within subprogram 6.3, General Administrative Services: Administrative Support (6.3.8160), Space Management (6.3.8165), and Employee Personnel and Records (6.3.8230).
Activity Centers to Receive Support Costs:	All final cost objectives eligible to receive support costs.
Recommended Allocation Parameter:	Total Direct Costs.
Alternative Allocation Parameter:	None Specified.
Comments:	None.

Allocation Step 14

Activity Centers to be Allocated:	All activity centers within subprogram 6.4, Logistical Services: Environmental Health and Safety (6.4.8170), Purchasing and Materials (6.4.8240), Mail and Distribution (6.4.8251), Telephone and Telegraph (6.4.8252), Printing and Reproduction (6.4.8253), and Transportation Services (6.4.8260).
Activity Centers to Receive Support Costs:	All final cost objectives eligible to receive support costs.
Recommended Allocation Parameter:	Total Direct Costs.
Alternative Allocation Parameter:	None Specified.
Comments:	If any of the above activity centers are directly charged in the institution's accounting system, the direct charges should be pulled back into the appropriate support activity centers for direct cost displays. For full costing, the allocation of that particular support activity center should be made on the basis of the original direct charges.

Allocation Step 15

Activity Centers to be Allocated:	All activity centers within subprogram 6.5, Physical Plant Operations: Utilities (6.5.8310), Building Maintenance (6.5.8320), Grounds Maintenance (6.5.8330), Custodial Services (6.5.8340), Facility Remodeling (6.5.8420), and Landscaping and Grounds Modification (6.5.8430).
Activity Centers to Receive Support Costs:	All final cost objectives eligible to receive support costs.
Recommended Allocation Parameter:	Assignable Square Feet.
Alternative Allocation Parameter:	Total Direct Costs.
Comments:	If any of the above activity centers are directly charged in the institution's accounting system, the direct charges should be pulled back into the appropriate support activity center for direct cost displays. For full costing, the allocation of that particular support activity center should be made on the basis of the original direct charges.

Allocation Step 16

Activity Centers to be Allocated: All activity centers within subprogram 6.7, Community Relations: Alumni Relations (6.7.8175), Community Relations (6.7.8180), and Development (6.7.8185).

Activity Centers to Receive Support Costs: All final cost objectives eligible to receive support costs.

Recommended Allocation Parameter: Total Direct Costs.

Alternative Allocation Parameter: None Specified.

Comments: None.

Allocation Step 17

Activity Centers to be Allocated: Program 9.0, Hospitals.

Comments: No allocation parameter is recommended for hospitals at this time. The National Academy of Sciences currently is conducting a study to specify procedures for allocating the costs of teaching hospitals to four final cost objectives: instruction, research, community services, and patient services. When this study has been completed, the recommended procedures and definitions will be reviewed and consideration will be given to adopting these procedures for the purposes of Cost Finding Principles.

CHAPTER VI

SECTION E - FULL COSTS

The previous chapters focused on the cost finding procedures for assigning direct costs to activity centers (Chapters III and IV), calculating capital costs and allocating these costs to activity centers (Chapter V), and designating certain activity centers as support activities and allocating the costs of support activities to final cost objectives (Chapter VI). These three elements of cost--direct costs, capital costs, and support costs--comprise full costs. Full costs using the sample data are displayed in Table 30. A reconciliation of total direct costs to full costs is illustrated in Table 31.

It often is meaningful to express instructional costs as a unit of a student activity measure. The following student activity measures were examined in the pilot test:

1. Semester Credit: A unit of measure that represents one student engaged in an instructional activity for a semester for which one credit or fraction thereof is granted toward a degree, diploma, or certificate upon completion of the activity. Total semester credits for a course level within a discipline are calculated by multiplying the course credit value by the number of students enrolled in each course and aggregating the totals by course level.

CHAPTER VI

SECTION E - FULL COSTS

The previous chapters focused on the cost finding procedures for assigning direct costs to activity centers (Chapters III and IV), calculating capital costs and allocating these costs to activity centers (Chapter V), and designating certain activity centers as support activities and allocating the costs of support activities to final cost objectives (Chapter VI). These three elements of cost--direct costs, capital costs, and support costs--comprise full costs. Full costs using the sample data are displayed in Table 30. A reconciliation of total direct costs to full costs is illustrated in Table 31.

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TABLE 30

FULL COSTS BY FINAL COST OBJECTIVE

Code	Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Other Allocated Costs	Full Costs
1.1.0401.20	Biology - LD*	$ 33,012	$ 31,287	$ 4,124	$ 60,191	$ 128,614
1.1.0402.20	Botany - LD	15,387	12,318	1,920	26,098	55,723
1.1.0402.30	Botany - UD**	23,966	13,457	2,995	36,874	77,292
1.1.0402.50	Botany - GD***	20,795	5,765	2,597	28,101	57,258
1.1.0407.20	Zoology - LD	28,442	12,290	3,555	41,120	85,407
1.1.0407.30	Zoology - UD	28,908	11,278	3,609	40,105	83,900
1.1.0407.50	Zoology - GD	18,091	6,341	2,259	23,391	50,082
1.1.0502.20	Accounting - LD	7,608	3,951	953	10,724	23,236
1.1.0502.30	Accounting - UD	18,811	6,286	2,352	23,180	50,629
1.1.0502.50	Accounting - GD	17,119	3,740	2,141	17,888	40,888
1.1.0509.20	Marketing - LD	5,735	2,784	717	7,820	17,056
1.1.0509.30	Marketing - UD	20,812	6,581	2,602	24,119	54,114
1.1.0509.50	Marketing - GD	22,730	4,809	2,838	25,062	55,439
1.1.0802.20	Elementary Education - LD	12,837	7,818	1,606	21,566	43,827
1.1.0802.30	Elementary Education - UD	62,111	23,989	7,758	90,640	184,498
1.1.0802.50	Elementary Education - GD	71,947	17,929	8,985	96,171	195,032
1.1.0803.20	Secondary Education - LD	19,472	10,195	2,430	26,781	58,878
1.1.0803.30	Secondary Education - UD	52,098	18,435	6,506	63,209	140,248
1.1.0803.50	Secondary Education - GD	106,380	22,414	13,291	112,331	254,416
1.1.0835.20	Physical Education - LD	41,031	12,416	5,126	58,071	116,644
1.1.0835.30	Physical Education - UD	11,805	8,198	1,473	17,028	38,504
1.1.1501.20	English - LD	45,989	26,099	5,745	62,639	140,472
1.1.1501.30	English - UD	69,636	24,861	8,701	78,429	181,627
1.1.1501.50	English - GD	57,193	9,787	7,144	55,354	129,478
1.1.1701.20	Mathematics - LD	52,309	22,682	6,535	75,182	156,708
1.1.1701.30	Mathematics - UD	19,638	5,287	2,455	25,138	52,518
1.1.1902.20	Physics - LD	17,983	8,043	2,249	23,040	51,315
1.1.1902.30	Physics - UD	42,280	14,863	5,283	50,369	112,795
1.1.1905.20	Chemistry - LD	28,718	16,593	3,589	37,522	86,422
1.1.1905.30	Chemistry - UD	51,542	43,662	6,437	69,330	170,971
1.1.2204.20	Economics - LD	37,578	18,393	4,694	53,030	113,695
1.1.2204.30	Economics - UD	29,807	8,845	3,722	36,448	78,822
1.1.2204.50	Economics - GD	25,752	5,146	3,216	28,864	62,978
1.1.2205.20	History - LD	42,153	22,190	5,264	61,172	130,779
1.1.2205.30	History - UD	54,192	22,583	6,771	72,035	155,581
1.1.2205.50	History - GD	47,758	9,224	5,966	53,047	115,995
1.4.0000	Extension Instruction for Credit	94,959	15,299	11,863	63,399	185,520

*Lower Division
**Upper Division
***Graduate

TABLE 30

FULL COSTS BY FINAL COST OBJECTIVE

(Continued)

Code	Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Other Allocated Costs	Full Costs
2.1.0500	Bureau of Business Research	$ 49,500	$ 13,696	$ 6,182	$ 79,247	$ 148,625
2.2.0401	Waterfowl Migration Study	47,800	4,809	5,971	48,475	107,055
2.2.0402	Mutation Recurrence Project	36,315	4,626	4,537	37,075	82,553
3.1.0000	Public Service, Community Education	12,949	2,390	1,615	8,381	25,335
3.1.0502	Community Education, Accounting	1,364	-	172	1,307	2,843
3.1.0509	Community Education, Marketing	980	-	123	940	2,043
3.1.0802	Community Education, Elementary Education	1,553	-	197	1,663	3,413
3.1.1902	Community Education, Physics	4,420	-	550	2,809	7,779
3.2.0000	Public Service, Community Service	8,990	-	1,124	2,843	12,957
3.2.0502	Community Service, Accounting	1,818	-	226	1,742	3,786
3.2.1501	Community Service, English	1,707	-	211	1,387	3,305
3.2.2205	Community Service, History	1,523	-	192	1,403	3,118
4.2.0000	Museums and Galleries	21,262	18,252	2,656	12,474	54,644
5.1.7110	Student Services	55,750	7,987	6,962	18,246	88,945
5.1.7120	Sterling Lecture Series	15,415	6,848	1,925	6,725	30,913
5.1.7140	Student Union	45,700	5,709	5,710	14,655	71,774
5.1.7200	Intercollegiate Athletics	271,220	34,241	33,900	87,099	426,460
5.5.7310	Food Services*	114,580	7,987	14,313	34,447	171,327
5.5.7320	Health Services	70,400	6,848	8,794	21,868	107,910
5.5.7330	Housing Services*	81,800	414,150	10,218	172,688	678,856
5.5.7340	Retail Services*	34,450	6,848	4,301	11,972	57,571
	TOTALS	$2,236,080	$1,050,229	$279,350	$2,262,914	$5,828,573

*Inventories and cost of goods sold have been excluded from these accounts.

TABLE 31

RECONCILIATION OF TOTAL DIRECT COSTS TO FULL COSTS

Total Direct Costs (Table 24)		$4,285,635
Capital Cost of Buildings and Land Improvements (Table 25)		1,406,187
Capital Cost of Equipment (Table 27)		490,998
Subtotal		$6,182,820
Delete:		
Cost of Goods Sold Included in Total Direct Costs:		
5.5.7310 Food Services	$130,720	
5.5.7330 Housing Services	96,800	
5.5.7340 Retail Services	126,740	
Subtotal		(354,260)
Full Costs (Table 30)		$5,828,560*

*This differs from the full costs displayed in Table 30 by $13 due to rounding.

2. Student Contact Hour: A unit of measure that represents one hour of instruction given to one student in one week. Total student contact hours for a course level within a discipline are calculated by multiplying the number of hours per week each course or section is scheduled to meet by the number of students enrolled and aggregating the totals by course level.

3. Course Enrollment: A unit of measure that represents one student enrolled in one course or one section of a course. Total course enrollments for a course level within a discipline are calculated by summing the number of students enrolled in each course or section and aggregating the totals by course level.

The CFP Task Force does not recommend any one student activity measure as most appropriate for information exchange or reporting purposes. Analysis of the pilot test data shows that it makes little difference in the unit cost rankings of schools and disciplines whether student credits, student contact hours, or course enrollments are used as measures of student activity.*

Once costs have been attached to course levels within disciplines, they can be transferred to student programs and student levels through the use of an instructional workload matrix (IWLM). An IWLM simply defines the current relationships between student programs and instruction activity centers.

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*Semester credits attempted is the recommended unit of exchange for IEP.

It is built for a specific period of time, typically an academic term. Specific instructions for constructing an IWLM are included in Information Exchange Procedures, Field Review Edition (Renkiewicz and Topping, 1973).

The costing procedures in this document are subject to additional testing in the Information Exchange Procedures project. During 1974 they will be pilot tested at approximately sixty institutions across the country and will be revised at the conclusion of the IEP pilot test.

APPENDIX A: GLOSSARY

Term	Description
A-21 Rate	The overhead rate determined by principles defined in the Office of Management and Budget Circular No. A-21. (OMB Circular A-21 was recently republished as FMC 73-8 by the General Services Administration.)
Academic Support Program	A PCS program consisting of those activities which directly assist the academic functions of the institution.
Academic Term	Refers to any discrete time period in which course work is offered by the institution and for which students seek enrollment; the term may include a regular session or a special session. See Regular Session and Special Session.
Academic Year	A consecutive time period institutionally designated as the academic year. An academic year may be equivalent to a fiscal year or may include only some of the sessions during which course work is offered. Typically an academic year is equated to two semesters, three quarters, two trimesters, or the time period covered by the 4-1-4 plan.
Account	A formal record of a particular type of transaction expressed in dollars or other unit of measurement.
Account Crossover	A procedure whereby the activities supported by the expenditures recorded in a fund accounting system are matched with the same activities in the Program Classification Structure.
Acquisition Cost	Acquisition is the act of coming into the ownership or posession of property or services. Acquisition cost is measured by the money or other resources exchanged to obtain the property or services.

Term	Description
Activities	A collection of similar functions performed by persons in an institution or program of postsecondary education. The collection of functions may be summarized at a high level of aggregation, such as Instruction or Organized Research, or at a lower level of aggregation, such as Lower Division History. These activities have been developed into a structure (the Program Classification Structure) to which measures of participants, expenditures, and so forth, may be attached.
Activity Analysis	A procedure by which personnel compensation dollars and service months are distributed to PCS activity centers.
Activity Center	A particular level of aggregation of activities performed by persons in an institution, based on the Program Classification Structure. See Activities.
Administrative/Support Personnel	All personnel classified as exempt under the Fair Labor Standards Act with the majority of their activities in programs 4.0, 5.0, 6.0, and 9.0.
Administrative/Support Personnel Compensation	The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel who have a majority (more than 50%) of their activities in 4.0, 5.0, 6.0, and 9.0 of the modified PCS.
Allocate	Reassignment of a cost, or group of costs, from support activity centers to final cost objectives.
Allocation Parameter	Institutional data (either financial or nonfinancial) which serve as a measure for actual or potential resource use.
Assignable Area	The sum of all areas of all floors of a building assigned to or available for assignment to an occupant; includes every type of space functionally usable by the occupant excepting those spaces defined as custodial, circulation, mechanical, and structural areas.

Term	Description
Assignable Square Feet	The floor area of the room, measured between the principal surface of the walls and partitions at or near floor level.
Average Cost	The cost per unit obtained by dividing total cost by total quantity.
Book Value	The dollar amount carried by the institution on its financial records of the original cost of its capital assets (including cost of capital improvements, fixed equipment, and development cost).
Building Additions	Those expenditures made primarily to enlarge or expand existing facilities and/or significantly alter their function.
Buildings	Facilities permanently affixed to the land including their associated heating and air-conditioning systems, electrical and sound systems, plumbing and sewer systems, elevators, and other fixed equipment. The historical cost of buildings is the original acquisition cost of the building plus the cost of any subsequent additions to the building. This definition specifically excludes renovations made to the building.
Capital Asset	Any physical resource which benefits a program for more than one operating period. Includes land, improvement to land, buildings, additions to buildings, and capital equipment.
Capital Cost	The valuation placed upon the services provided by buildings and equipment owned (or leased) and used by an institution during any time period. The capital cost of an asset is measured by computing its annual depreciation plus a charge for the annual interest foregone on the investment in that asset.
Capital Equipment	Those items of movable property (not permanently attached to a structure) that have an acquisition cost of $500 or more and an expected service life that exceeds two years.

Term	Description
Capital Expenditures	Funds expended for land, improvements to land, buildings, additions to buildings, and equipment with an acquisition cost of $500 or more and an expected service life that exceeds two years.
Chart of Accounts	A systematically arranged list of institutional accounts that reflects various fiscal activities recorded in the institution's fund accounting system.
Compensation	The total dollar amount, inclusive of gross salaries and fringe benefits, paid directly to or on behalf of personnel. See Salary and Fringe Benefits.
Compensation Rate	An individual's gross salary (exclusive of fringe benefits) for a standard unit of time.
Cost	The measure in dollars of institutional resources used in the process of achieving institutional objectives during a given time period.
Cost Category	A method of classifying costs by similar types of resources used. The cost categories used in this document are: Instruction/Research/Public Service Personnel Compensation, Administrative/Support Personnel Compensation, Other Staff Compensation, Supplies and Services, Capital Cost for Buildings and Land Improvements, Capital Cost for Equipment, and Allocated Support Costs.
Cost Finding	An analytical process periodically used in lieu of a formal cost accounting system, making use of accounting data as well as other data available within the institution to arrive at unit cost information for activities conducted by the institution.
Costable Hours	The time associated with those faculty activities to which a faculty member's compensation is assigned.

Term	Description
Course Enrollment	A unit of measure that represents one student enrolled in one course or one section of a course. Total course enrollments for a course level within a discipline are calculated by summing the number of students enrolled in each course or section and aggregating the totals by course level.
Course Identifier	The official institutional number or other code that serves to uniquely identify a course.
Course Level	The institutional categorization for the level of offering of a specific course; the categorization derived from the level of student to which any particular course offering within a discipline is primarily directed. Multiple-level courses should be assigned a course level that best represents primary intent of the course. In the CFP procedures, three course levels are specified within each discipline: (1) Lower Division: Course offerings at a level of comprehension usually associated with freshmen and sophomore students. (2) Upper Division: Course offerings at a level of comprehension usually associated with junior and senior students. Jointly offered upper division/graduate courses should be classified as upper division. (3) Graduate: Course offerings at a level of comprehension usually associated with postbaccalaureate students.
Course Title	The official name of a course as it appears in the institutional catalog.
Credit Course	A course offered by an institution for which at least one semester credit or fraction thereof, or its equivalent, is awarded to a student who completes the course.
Crossover Procedures	See Account Crossover.

Term	Description
CUBA Functional Categories	Expenditure categories as developed in *College and University Business Association* (ACE: 1968): Instruction and Departmental Research Organized Activities Related to Educational Departments Sponsored Research Other Separately Budgeted Research Other Sponsored Programs Extension and Public Service Libraries Student Services Operation and Maintenance of Physical Plant General Administration General Institutional Expenses Auxiliary Enterprises Student Aid Hospitals
Current Funds Expenditures	Funds expended for current operating purposes, either restricted or unrestricted.
Depreciation	The process of apportioning the cost or other basic value of an asset, less salvage value (if any), over the estimated useful life of the asset in a systematic and rational manner.
Direct Allocation	A method of cost allocation based on the premise that the services produced by all support activity centers contribute directly and exclusively to final cost objectives. The costs associated with support activities are not allocated to other support activities as an intermediate step.
Direct Cost Studies	Separate surveys or analyses of aggregate cost categories (objects of expenditure) conducted to gather additional information that aids in the assignments of costs to activity centers.

Term	Description
Direct Costs	The summation of Instruction/Research/Public Service Personnel Compensation, Administrative/Support Personnel Compensation, Other Staff Compensation, and Supplies and Services which have been assigned to PCS activity centers residing in 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, and 9.0. Specifically excluded from total direct costs are Capital Cost for Buildings and Land Improvements (6.8), Capital Cost for Equipment (6.9), Independent Operations (7.0), Scholarships (8.1), and Fellowships (8.2).
Discipline	Generally, a branch of knowledge or teaching. For CFP, discipline partially denotes activity centers that produce instruction, organized research, or public service outcomes. In some cases, "discipline" may be synonymous with "department." Disciplines are categorized according to the standard taxonomy of fields of study used in the Higher Education General Information Survey (HEGIS) published by the National Center for Educational Statistics under the title A Taxonomy of Instructional Programs in Higher Education (Huff and Chandler, 1970). A reprint appears in Appendix C and is referred to as the "HEGIS Taxonomy."
Equipment	See Capital Equipment or Noncapital Equipment.
Exempt Personnel	Persons not eligible for overtime payment as stipulated in the provisions of the Fair Labor Standards Act (FLSA).
FAA	Faculty Activity Analysis.
Faculty	Any exempt personnel with the majority (50% or more) of their activities in 1.0, 2.0, or 3.0 of the Program Classification Structure (Instruction/Research/Public Service Personnel).
Faculty Activity Analysis	A procedure by which the activities of faculty are analyzed in order to distribute their compensation dollars and service months to PCS activity centers. May refer specifically to Faculty Activity Analysis Procedures Manual (Manning and Romney, 1973).

Term	Description
Faculty Contact Hour	A unit of measure that represents one hour of instructional staff time spent in contact with a scheduled section or course in one week. Total faculty contact hours for a course level within a discipline are calculated by summing the number of hours per week each course or section is scheduled to meet and aggregating the totals by course level.
Fellowships	An activity center (8.2) that includes all monies awarded to graduate students (either predoctoral or postdoctoral) to encourage study in their field of interest.
Final Cost Objectives	Those activity centers whose outcomes are directly related to the accomplishment of the primary missions of the institution, or do not demonstrate a vital support function for other programs within the institution. Final cost objectives may or may not be eligible to receive costs from support activity centers.
Financial Aid	Includes all grants, loans, or work/study assistance to students awarded by and/or administered through the institution. This aid can be derived from federal, state, local, private, or institutional sources. (1) Grants: All stipends, tuition, fee remissions, and gifts to students that are outright awards and are not contingent upon services to be rendered by the student. Includes all fellowships and scholarships to graduates or undergraduates. Also included are any funds from specialized training grants which are specifically designated for stipends as well as tuition waivers for refunds, as long as the grant is need-based. The Educational Opportunity Grants (EOG) would be included here.

Term	Description
	(2) Loans: Funds made available to students for assistance on a loan basis. The source of these funds may be gifts, endowment income, other institutional funds, private sources, and/or appropriations of governmental agencies. National Defense Student Loans would be included here. Excluded are short-term loans (usually three months) available to all students regardless of need.
	(3) Work/Study Assistance: The extension of financial aid support to students through the College Work/Study Program in which federal or state government contributes partial monies for the payment of services rendered by students and required for financial assistance.
Fiscal Reference	Those portions of the FAA form (the fiscal reference block and the fiscal reference column) which allow linking the institution's budgetary accounts to specific faculty activities.
Fiscal Year	The institutionally defined consecutive twelve-month period for which financial transactions (or a summary) are available.
Foregone Interest	The annual interest foregone as a result of having money invested in a particular capital asset.
Fringe Benefits	An element of compensation which may include the items listed below (illustrative only). Fringe benefits should include all benefits paid to personnel, regardless of whether the benefits or equivalent cash options are available to all. (1) Social Security: If covered by Social Security, include appropriate FICA tax. If covered by an alternative plan, such as Colorado's PERA, include the appropriate payments. (Definition applies to all types of employees.)

Term	Description
	(2) Retirement: Include all contributions made to a retirement fund regardless of vesting requirements.
	(3) Medical Insurance: Include payments made to provide medical insurance to the employees.
	(4) Life Insurance: Include payments made to provide life insurance to the employees.
	(5) Guranteed Disability Income Protection: Include contributions, through insurance or otherwise, for prolonged disability income payments providing such payments do not arise from the accumulation of unused annual sick leave benefits.
	(6) Unemployment Compensation: Include payments to be made under the Unemployment Compensation law.
	(7) Workmen's Compensation: Include payments to be made under Workmen's Compensation laws.
	(8) Other Benefits: Personal benefits are to be included. Included in this category are tuition and housing benefits (e.g., tuition waivers). Benefits of a professional nature (such as conventional travel, membership fees, grading assistance, faculty clubs, etc.) should not be included as fringe benefits; rather, these items should be included as Supplies and Services of the appropriate activity center.
FTE Service Months	The number of full-time equivalent months worked by one person during a fiscal year. Service months include time worked regardless of pay period (e.g., 12 monthly checks for 10 "service months" of work).

Term	Description
Full Costs	The sum of direct costs, capital costs, and allocated support costs for an activity center or group of activity centers.
Fund Accounting	A method of recording assets, liabilities, revenues, and expenditures in distinct accounting entities established for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. Also referred to as institutional or governmental accounting.
Graduate Course	See Course Level.
Grants	See Financial Aid.
Gross Area	The sum of all floor areas of a building based on exterior dimensions.
HEGIS	Higher Education General Information Survey. The annual survey of all institutions of higher education conducted by the National Center for Educational Statistics.
HEGIS Taxonomy	The classification of instructional disciplines developed by the National Center for Educational Statistics, Office of Education, Washington, D.C., and used in conjunction with the PCS Activity Center, also used to categorize student programs. See Appendix C.
IEP	Information Exchange Procedures Project.
I/R/PS Personnel	Instruction/Research/Public Service Personnel.
Identification Number	The official institutional number that serves to uniquely identify an individual.
Incremental Cost	The change in total costs which would result if an organization adopted a proposed course of action (or deleted an ongoing operation) for a stated period of time.
Independent Operations Program	A PCS program consisting of those activities independent of, or unrelated to, the basic missions of the institution.

Term	Description
Institutional Accounting System	See Fund Accounting.
Institutional Chart of Accounts	See Chart of Accounts.
Institutional Support Program	A PCS program consisting of those activities within the institution which provide campus-wide support to the other programs.
Instruction Program	A PCS program consisting of all formal instructional activities in which a student engages to earn credit toward a degree, diploma, or certificate.
Instruction/Research/Public Service Personnel	All personnel classified as exempt under the Fair Labor Standards Act with the majority (50% or more) of their activities in programs 1.0, 2.0, and 3.0 of the PCS. The personnel category typically is referred to as faculty.
Instruction/Research/Public Service Personnel Compensation	The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all exempt personnel who have a majority (50% or more) of their activities in 1.0, 2.0, and 3.0 of the PCS.
Instructional Unit Cost	Costs assigned to an Instructional activity center divided by a measure of student activity, such as semester credits.
Instructional Workload Matrix	A matrix which defines the relationship between student programs and instructional activity centers that provide credit instruction to students. Also referred to as IWLM.
Interdepartmental Transactions	A transfer of funds from one department to another within an institution.
Land	Unimproved real estate.
Land Improvements	Real estate improvements other than buildings. This capital asset category includes such improvements as streets, roads, sidewalks, bridges, outside lighting, irrigation systems, trees, plantings, landscaping, parking lots, fencing, and improvements to athletic fields and recreational areas.

Term	Description
Loans	See Financial Aid.
Lower Division Course	See Course Level.
Mandatory Transfers	Includes all transfers from one fund group to another which must be made to fulfill the terms of binding legal obligations of the institution.
Mapping Conventions	A set of procedures to match specific faculty activities with specific PCS activity centers.
Marginal Cost	The increase in total cost of an organization's activities for a stated time period caused by the production of one additional unit of output, e.g., a degree.
Measures	Items of information that describe participants, resources, activities, finances, and outcomes. The use of the term "measure" implies that a unit of measurement can be identified and that these units can be defined, aggregated, and displayed in a standard manner.
NCHEMS	National Center for Higher Education Management Systems.
Nonassignable Area	The sum of the circulation, custodial, mechanical, and structural areas.
Noncapital Equipment	Those items of property that have an acquisition cost of less than $500 or an expected service life of less than two years.
Nonmandatory Transfers	Includes all transfers made at the direction of the institution's governing board.
Object of Expenditure	A method of classifying expenditures according to what is received in return for the expenditures. This document uses the following object classifications: Instruction/Research/Public Service Personnel Compensation, Administrative/Support Personnel Compensation, Other Staff Compensation, Supplies and Services Expenditures, Capital Cost Expenditures, and Scholarships and Fellowships.

Term	Description
Opportunity Cost	A benefit foregone. The cost of any resource with alternative uses that is committed to the production of higher education outputs.
Organizational Unit	An academic department or other organizational division that has fiscal, programmatic, and administrative responsibility for a specific set of activities.
Organized Research Program	A PCS program consisting of those research-related activities established within the institution under the terms of agreement with agencies external to the institution or separately budgeted and conducted with internal funds.
Other Staff	All personnel classified as nonexempt under the Fair Labor Standards Act.
Other Staff Compensation	The total dollar amount, including gross salaries and fringe benefits, paid directly to or on behalf of all nonexempt personnel.
Parameter	See Allocation Parameter.
Payroll Account Number	The number assigned to each individual that designate(s) the account from which an individual's salary is paid. More than one number may be used for one individual.
PCS Activity Center	See Activity Center.
Procedures	Specified methods or conventions for classifying and aggregating measures (information items) within a structure or for translating measures from one structure to another.
Program	A level of the Program Classification Structure that contains highly aggregated information reflecting the major institutional missions and related support objectives.
Program Category	A level of the Program Classification Structure that contains a classification of similar or related activities, by discipline area or major function.

Term	Description
Program Classification Structure	The Program Classification Structure (Gulko, 1972) defines a framework for identifying and organizing the activities of higher education institutions in a program-oriented manner. See Appendix B.
Program Sector	A level of the Program Classification Structure primarily intended to identify the level of course for instructional activities.
Public Service Program	A PCS program consisting of those activities within the institution which produce outputs directed toward the benefit of the community or individuals residing within the geographic service area of the institution.
Recursive Allocation	A method of cost allocation based on the premise that support activities may contribute costs to other support activities before they are allocated to final cost objectives. Implicit in the recursive allocation technique is the ability to rank all support activity centers according to the time sequence in which the allocations are to occur. Also referred to as step-down allocation.
Regular Session	An institutionally designated time period during which course work is offered by the institution. Typically, a regular session includes a semester, a quarter, a trimester, or one part of a 4-1-4 calendar system; typically excluded are special short-term sessions or special summer sessions. Regular sessions usually take place during the institution's academic year.
Renovations	Those expenditures made primarily to restore or repair facilities without making significant changes in function and without actually increasing the size or capacity of the facility.
Rent	Contractual payments for the use of commercially owned land, buildings, and equipment.

Term	Description
Salary	The gross salary or wages paid to personnel, excluding any fringe benefits.
Scholarships	An activity center (8.1) that includes all expenditures for undergraduate student aid.
Section	A group of students assembled for instruction in a regularly scheduled meeting of a course.
Section Identifier	An institutionally defined unique identifier for each course section offered.
Section Size	The number of students enrolled in a section of a course.
Semester Credit	A unit of measure that represents one student engaged in an instructional activity for a semester for which one credit or fraction thereof is granted toward a degree, diploma, or certificate upon completion of the activity. Total semester credits for a course level within a discipline are calculated by multiplying the course credit value by the number of students enrolled in each course and aggregating the totals by course level.
Semester Credit Equivalent	A unit of measure that represents the equivalent of one student engaged in an instructional activity for a semester for which one credit or fraction thereof is granted toward a degree, diploma, or certificate upon completion of the activity (e.g., 1 semester credit = 1.50 quarter hours).
Service Months	See FTE Service Months.
Special Session	Special sessions include summer sessions and special interim sessions not in common with regular sessions as designated by the institution.
Step-Down Allocation	See Recursive Allocation.

Term	Description
Structure	A framework for organizing information. See Program Classification Structure.
Student Contact Hour	A unit of measure that represents one hour of instruction given to one student in one week. Total student contact hours for a course level within a discipline are calculated by multiplying the number of hours per week each course or section is scheduled to meet by the number of students enrolled and aggregating the totals by course level.
Student Services Program	A PCS program consisting of those activities related to the institution's student body, excluding the degree-related curriculum and student records.
Supplies and Services	A broad category of expenditures that includes all types of current fund expenditures except compensation, capital expenditures, and scholarships and fellowships. (1) Supplies: Consumable instructional, research, and office supplies and materials. (2) Communications: Telephone, telegraph, postal, printing, binding, and reproduction services. (3) Travel: Transportation, food, lodging, and miscellaneous expenses reimbursed to an employee when he is representing or conducting business for the institution. (4) Other Contractual Services: All other services produced from outside sources that can be directly identified with a particular activity center, e.g., consulting services. (5) Noncapital Equipment: Those items of property that have an acquisition cost of less than $500 or an expected service life of less than two years.

Term	Description
	Services not included here for direct cost reporting are: Library Services (4.1), Audio/Visual Services (4.3), General Administrative Services, including administrative data processing (6.3), Logistical Services, including the handling and storage of materials and transportation services (6.4), Physical Plant Operations, including utilities, maintenance, landscaping, and facility remodeling (6.5), Building Rental (6.8), and Equipment Rental (6.9).
Support Activity Centers	Those activity centers whose outcomes are necessary or vital for the successful operation of other programs with the institution, but do not contribute directly to the accomplishment of the primary missions of the institution.
Support Cost Allocation	The process of transferring costs lodged in support activity centers to final cost objectives using allocation parameters (i.e., measures) that approximate actual or potential resource use.
Support Costs	Those costs not directly assigned to a final cost objective; those first assigned to support activity centers and subsequently allocated to final cost objectives via an allocation parameter.
Transfers	See Mandatory and Nonmandatory Transfers.
Unit Cost	See Instructional Unit Cost.
Upper Division Course	See Course Level.
Useful Life	The period of economic utility during which an asset renders service to an institution.
Work/Study Assistance	See Financial Aid.

APPENDIX B: PROGRAM CLASSIFICATION STRUCTURE ACTIVITY CENTERS

PROGRAM CLASSIFICATION STRUCTURE

ACTIVITY CENTERS

The following list of Program Classification Structure (PCS) activity centers is recommended for use in the Cost Finding Principles project. The list has two segments:

1. A summary displaying all of the elements.
2. A detailed listing including definitions and additional disaggregations.

Note: These elements and definitions are taken from the *Program Classification Structure*. Anyone using them for cost finding purposes should be thoroughly acquainted with the contents of that document.

Program Classification Structure
Activity Center Summary

1.1	General Academic Instruction*
1.2	Occupational and Vocational Instruction*
1.3	Special Session Instruction*
1.4	Extension Instruction*
2.1	Institutes and Research Centers**
2.2	Individual or Project Research**
3.1	Community Education**
3.2	Community Service**
3.3	Cooperative Extension Service
3.4	Patient Services**
3.5	Specialized Training Programs**
4.1	Libraries
4.2	Museums and Galleries
4.3	Audio/Visual Services
4.4	Computing Support
4.5	Ancillary Support**
4.6	Academic Administration and Personnel Development**
4.7	Course and Curriculum Development**

*By discipline and course level
**By discipline
***By functional subcategory

5.1.7200	Student Development
5.1.7200	Intercollegiate Athletics
5.2	Supplementary Educational Service
5.3	Counseling and Career Guidance
5.4	Financial Aid Administration
5.5	Student Support***
5.6	Student Admissions and Records
6.1	Executive Management***
6.2	Fiscal Operations***
6.3	General Administrative Services***
6.4	Logistical Services***
6.5	Physical Plant Operations and Maintenance***
6.6	Faculty and Staff Services***
6.7	Community Relations***
6.8	Capital Cost - Buildings and Land Improvements
6.9	Capital Cost- Equipment
7.0	Independent Operations
8.1	Scholarships
8.2	Fellowships
9.0	Hospitals

*By discipline and course level
**By discipline
***By functional subcategory

The following is a detailed display of the items, their difinitions, and codes, that comprise the activity centers.

1.1 General Academic Instruction

Definition: The general academic instruction activity centers consist of those activities whose outputs are eligible for credit in meeting specified curricular requirements leading toward a particular postsecondary degree, certificate, or diploma granted by the institution.

Application: Costs and other items of information that relate directly to academic discipline activities are to be categorized under this activity center. Confusion may arise in cases where an academic discipline is offered primarily for instruction to vocational students, e.g., math for auto mechanics. In such cases it is appropriate to identify the information with the associated academic discipline under the occupational and vocational instruction activity center (1.2.1701). The same institution (typically a community college) may offer mathematics for transfer students which would be appropriately coded 1.1.1701.

Limitations: Information related to activities established to provide instructional services that are not creditable toward degrees should be assigned to the supplementary educational service activity center (5.2) if the primary intent is to provide supplemental or remedial educational services for matriculated students, or to the community education activity center (3.1) if the primary intent is to offer instructional services for persons in the community. Information related to activities typically associated with two-year (or less) vocational certification should be included under the occupational and vocational instruction activity center (1.2.XXXX.XX). Courses that serve both 1.1 and 1.2 are to be categorized by primary intent. Information related to the extension instruction for credit activity center (1.4.XXXX) is also excluded.

Coding Detail: Discipline and course level--1.1.XXXX.XX. Codes for the disciplines are specified in Appendix C.

1.2 Occupational and Vocational Instruction

Definition: The occupational and vocational instruction activity centers consist of those activities whose outputs are eligible for credit in meeting specified curricular requirements leading to a particular postsecondary degree or certificate granted by the institution. The activities in these centers have been established primarily to provide instruction in nonacademic disciplines and are intended primarily for use by institutions offering two-year (or less) terminal degrees for vocational certification in the trades and paraprofessional areas.

Application: Costs and other items of information related to activities serving two-year (or less) terminal degrees for vocational certification are classified here. Confusion may arise where an academic discipline is offered primarily for instruction to vocational students, e.g., math for auto mechanics. In such cases, it is appropriate to identify the information with the associated academic discipline having management responsibility for the activities and code them within the appropriate occupational and vocational activity center (1.2). The same community college may offer mathematics for transfer students. That progam would be appropriately coded 1.1.1701.XX. Courses that serve both 1.1 and 1.2 activities should be categorized by primary intent.

Limitations: Activities related to general academic instruction (1.1) and extension instruction (for credit) (1.4) are excluded. Information related to activities established to provide instructional services that are not creditable toward degrees should be assigned to the supplementary educational service activity center (5.2) if the primary intent is to provide supplemental or remedial educational services for matriculated students, or the community education activity center (3.1), if the primary intent is to offer instructional services for persons in the community.

Coding Detail: Discipline and course level--1.2.XXXX.XX. Codes for the disciplines are specified in Appendix C.

1.3 Special Session Instruction

Definition: These activity centers consist of all instructional activities offered during a summer session, interim session, or other period that is not in common with the institution's regular term. It consists of activities whose outputs are eligible for credit in meeting specified curricular requirements leading to a particular postsecondary degree or certificate granted by the institution.

Application: Costs and other items of information related to special session instruction activities are categorized here.

Limitations: Excluded is information related to instructional activities that are offered during an institution's regular academic term.

Coding Detail: Discipline and course level--1.3.XXXX.XX. Codes for disciplines are specified in Appendix C.

1.4 Extension Instruction (for credit)

Definition: These activity centers consist of all those instructional activities that are managed separately by an extension division (or similar agency within the institution) and are applicable toward a formal degree or certificate. They consist of activities whose outputs are eligible for credit in meeting specified curricular requirements leading to a particular postsecondary degree or certificate granted by the institution.

Application: Costs and other items of information related to extension instruction activities are categorized here.

Limitations: Excluded is information related to activities that may not be credited toward formal degrees or certificates and are offered by an institution primarily as a public service, e.g., continuing education, short courses, etc.

Coding Detail: Discipline and course level--1.4.XXXX.XX. Codes for disciplines are specified in Appendix C.

2.1 Institutes and Research Centers

Definition: These activity centers contain all research-related program elements that are part of a formal research organization. Typically, research organizations are created to manage a number of research efforts. Program elements belonging to such semi-autonomous entities should be included within this program and classified according to the HEGIS disciplines wherever possible. In some cases, it may be preferred to classify these research organizations in relation to the general discipline category, e.g., physical sciences, rather than a specific subcategory, e.g., physics. Included are research division, bureaus, institutes, and experimental stations.

Application: Costs and other items of information related to institutes and research center activities are categorized here.

Limitations: Research activities that are managed within academic departments should be included in activity center 2.2, individual or project research.

Coding Detail: Discipline level--2.1.XXXX. Codes for discipline are specified in Appendix C.

2.2 Individual or Project Research

Definition: These activity centers consist of research activities that are normally managed within the academic departments. This subprogram consists of the various research-related program elements that have been created as a result of a contract, grant, or specific allocation of institutional resources to conduct a study or investigation of a specific scope. Generally, such program elements may be identified with the principal investigator and should be coded within his assigned discipline. Program elements within this subprogram are normally of a temporary nature (i.e., created for a specified period of time) as contrasted to the more permanent nature of the research organizations within the institutes and research centers subprogram However, an institution can explicitly commit departmental resources to the creation of research outcomes on an ongoing basis as a part of its educational program or policy. In such cases, the institution would appropriately establish research program elements in the various academic departments within subprogram 2.2, individual or project research.

Application: Costs and other items of information related to individual or project research activities are categorized here.

Limitations: Information related to activities of externally funded educational activities such as workshops, short courses, and training grants would normally be considered as either instruction or public service. Departmental research, when not supported by specific designation of funds, is part of one of the instructional activity centers. Course and curriculum development is included under activity center 4.7.

Coding Detail: Discipline level--2.2.XXXX. Codes for disciplines are specified in Appendix C.

3.1 Community Education

Definition: These activity centers consist of activities that are designed to provide services beneficial to groups external to the institution and that are managed within the academic departments or elsewhere within the institution to provide continuing education, e.g., noncredit instructional services, to members of the community other than matriculated students. Community education is considered to be those activities that have been established to provide an educational service to the various members of the community and are not part of the degree curriculum, e.g., short courses, professional review courses, etc.

Application: Costs and other items of information related to noncredit instructional services provided to members of the community other than matriculated students are classified here.

Limitations: Information related to noncredit instructional services to provide supplemental or remedial services for matriculated students is classified under supplementary educational service activity centers (5.2).

Coding Detail: Discipline level--3.1.XXXX. Codes for disciplines are specified in Appendix C.

3.2 Community Service

Definition: These activity centers consist of activities that are designed to provide services beneficial to groups external to the institution and that are established to provide general community services, excluding instructional activities. Community service activities are managed either within the academic departments or elsewhere within the institution and have been established to provide general public services to the community at large or special sectors within the community. Community service is concerned with making available to the public various resources and unique capabilities that exist within the institution. Examples of community service may be conferences and institutes, general advisory services and reference bureaus, urban affairs, international affairs, radio and television, consultation, and similar activities.

Community service activities are those for which the primary intent for establishing and maintaining the activity is to provide services that are beneficial to groups and individuals outside of the institution.

Application: Costs and other items of information related to general community services, excluding instructional activities, are to be classified here.

Limitations: Information related to instructional activities and to activities established primarily for the institution's staff or student body is excluded.

Coding Detail: Discipline level--3.2.XXXX. Codes for disciplines are specified in Appendix C.

3.3 Cooperative Extension Service

Definition: These activity centers consist of all those activities that are designed to provide services beneficial to groups external to the institution and that are established as the result of cooperative efforts between the university and outside agencies, e.g., agriculture extension, urban extension, and is intended primarily for land-grant colleges and universities. The distinguishing feature of these activities is that the programmatic and fiscal control is shared by the institution with one or more governmental units. Historically, agriculture extension and, increasingly, certain urban extension programs represent a significant commitment of resources that are not necessarily under the control of the institution in terms of the programmatic direction of the activities. These cooperative extension programs are often a cross between independent operations and public service in that they represent a mix of resources belonging to the institutions.

Application: Costs and other items of information related to activities and services associated with cooperative extension services are to be classified here.

Limitations: Cooperative extension programs are often a cross between independent operations and public service. Information related to activities primarily under the control of an agency external to the institution is to be classified under the independent operations program (7.0).

Coding Detail: Agriculture Extension Service activities are to be classified as 3.3.6600; Urban and Other Extension Service activities are to be classified as 3.3.6700.

3.4 Patient Services

Definition: These activity centers consist of those activities that provide services which benefit patients either directly through faculty physicians or indirectly through consulting, laboratory, or other services rendered under the auspices of a hospital or clinic. Patient service activities are those that have been established to provide public services to the community at large or to special sectors within the community, e.g., low-income families.

Application: Costs and other items of information related to patient service activities are categorized here. Patient services are typically combined with instruction and research activities, as in a teaching hospital. Therefore, the combined costs should be crossed over to Hospitals (9.0) or the appropriate Ancillary Support activity center (4.5) and a portion allocated to patient services as a result of a special study.

Limitations: Patient services provided to the student body are classified under student health services (5.5.7320). Patient services provided to the faculty and staff are classified under faculty health services (6.6.7320).

Coding Detail: Discipline level--3.4.XXXX. Codes for disciplines are specified in Appendix C.

3.5 Specialized Training Programs

Definition: These activity centers consist of those activities that offer noncredit training for a specified purpose and are typically administered and funded as separate projects or grants.

Application: Costs and other items of information about activities in specialized training programs such as the Peace Corps or law enforcement are to be included here.

Limitations: Do not include funds for stipends connected with the training program. They should be included in 8.1 or 8.2.

Coding Detail: Discipline level--3.5.XXXX. Codes for disciplines are specified in Appendix C.

NOTE: The overall objective of the activity centers contained in subprograms 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, and 4.7 defined below is to provide support services that are an integral part of the operations of instructional research, and public service activity centers through the retention, preservation, and display of materials, or provide services that directly assist the academic functions of the institution.

4.1 Libraries

Definition: These activity centers consist of all activities that directly support the operation of a catalogued or otherwise classified collection of published material.

Application: Costs and other items of information related to activities supporting the operation and maintenance of a collection of published materials is classified here.

Limitations: Information related to departmental library services is included in the appropriate instructional, research, or public service activity centers.

Coding Detail: If a library can be identified with a group of disciplines, e.g., Law or Business, the first two digits of the HEGIS code should also be used.

4.2 Museums and Galleries

Definition: This activity center consists of all activities established to provide services to the collection, preservation, and exhibition of historical materials, art objects, scientific displays, etc.

Application: Costs and other items of information related to the provision of museum and gallery activities are included in this category.

Limitations: Information related to departmental museums and galleries is included in the appropriate instructional, research, or public service activity centers.

Coding Detail: No further breakdown recommended.

4.3 Audio/Visual Services

Definition: This activity center consists of all activities associated with providing audio and visual services to support the academic programs of the institution.

Application: Costs and other items of information related to providing audio and/or visual materials are included in this category.

Limitations: Information related to such activities as audio/visual technology as part of the instructional process (language laboratory for an individual department) should be included in the appropriate discipline and instructional activity center.

Coding Detail: No further breakdown recommended.

4.4 Computing Support

Definition: This activity center consists of those activities established to provide computing support to the instruction (1.1, 1.2, 1.3, and 1.4), organized research (2.1, and 2.2), and public service (3.1, 3.2, 3.3, 3.4, and 3.5) activity centers.

Application: Costs and other items of information related to computing support activities are classified here.

Limitations: Excluded are items of information related to administrative data processing activities which are included as part of the general administrative service activity center (6.3). In the case of a centralized center serving both academic and administrative needs, it is recommended that the institution attempt to distinguish between those resources pertaining to supporting the administrative computing activities and that related to academic computer support activities. Information related to computer-assisted instruction activities should be identified with course activities and should be coded under the appropriate instructional activity center and discipline.

Coding Detail: No further breakdown recommended.

4.5 Ancillary Support

Definition: These activity centers consist of those activities that provide support services to the primary programs and are not appropriately classified within the previous activity centers. Such ancillary support activities, when they exist, normally provide joint services to the instruction, organized research, and public service programs.

Application: Costs and other terms of information related to ancillary support activities typically deal with demonstration schools and special functions such as machine or glass-blowing shops.

Limitations: Information pertaining to shops and similar activities that serve a specifically identifiable function and discipline should be coded under the appropriate category of the instructional organized research, or public service activity center. Information relating to teaching hospitals should be coded as a separate program (9.0).

Coding Detail: Discipline level - 4.5.XXXX. Codes for disciplines are specified in Appendix C.

4.6 Academic Administration and Personnel Development

Definition: These activity centers consist of all activities that provide general administrative support and management direction for the primary programs.

Application: For the purposes of this document, costs and other information related to the activities of college deans, departmental chairmen, associated support staff, and their equivalents are included in this category. Also included are administrative activities of all faculty members as identified through a faculty activity analysis.

Limitations: Information related to the activities of the institution's executive and general administrative officers is more appropriately coded under the executive management activity centers (6.1).

Coding Detail: Discipline level - 4.6.XXXX. Codes for disciplines are specified in Appendix C.

4.7 Course and Curriculum Development

Definition: These activity centers consist of those activities established to accomplish the planning and developmental activities for future (i.e., subsequent to the current budget period) instructional activities. The intent of this center is to separate initially from the current operational aspects of the instruction program those activities that may result in instructional offerings at some point beyond the current budget period. This activity center may be thought of as reflecting investment costs for future instruction program elements.

Application: For the purposes of this manual, costs and other information related to separately budgeted activities that are specifically devoted to course and curriculum development activities are classified here. Also included are course and curricular activities of all faculty members as identified through a faculty activity analysis.

Coding Detail: Discipline level - 4.7.XXXX. Codes for disciplines are specified in Appendix C.

NOTE: The overall objective of activity centers 5.1.7100, 5.1.7200, 5.2, 5.3, 5.4, and 5.5 as defined below is to contribute to the student's emotional and physical well-being, outside the context of the formal academic program.

5.1.7100 Student Development

Definition: This activity center consists of all those activities that have been established to provide for the student's social and cultural development outside of the degree curriculum.

Application: Costs and related items of information to be classified under this center includes those that pertain to activities such as student activities, cultural events, student organizations, recreation, and intramural athletics. Information related to student unions, bowling alleys, and sports complexes is also included here.

Limitations: Information related to intercollegiate athletics and to instructional activities creditable toward a degree is excluded.

Coding Detail: No further breakdown recommended.

5.1.7200 Intercollegiate Athletics

Definition: This activity center includes activities associated with the performance of intercollegiate athletics. It is assumed that the primary intent of such activities is to enhance the student's development.

Application: This center is provided to keep a separate tabulation of costs and other information devoted to the institution's intercollegiate athletics program.

Limitations: Information related primarily to intramural activities and/or instructional activities is excluded.

Coding Detail: No further breakdown recommended.

5.2 Supplementary Educational Service

Definition: These activity centers consist of those activities that have been established primarily to provide matriculated students with supplemental instruction outside of the normal academic activities. Generally, activities within this center are established to provide remedial education service as contrasted to instructional activities that are a part of the degree curriculum.

Application: Costs and other information related to the provision of supplemental instruction outside the normal academic program to matriculated students are included here.

Limitations: Information related to regular academic programs and to providing nondegree instructional activities to members of the community is excluded.

Coding Detail: No further breakdown recommended.

5.3 Counseling and Career Guidance

Definition: This activity center consists of those activities established to provide counseling services, career guidance, and placement services for the student body.

Application: Costs and other information related to the activities of placement bureaus, counseling centers, etc., are included in this activity center.

Limitations: Information concerning faculty giving informal student counseling is excluded.

Coding Detail: No further breakdown recommended.

5.4 Financial Aid Administration

Definition: This activity center consists of those activities established to provide financial aid and assistance to students and pertains only to the administration of such activities.

Application: Costs and related information concerning the activities associated with financial analysis and counseling, and the administration of work/study, student employment, scholarships, loans, and grants programs are included here.

Limitations: Excluded is information concerning placement bureaus for students leaving the institution. Note also that the actual cash amount for scholarships, loans, and grants are excluded.

Coding Detail: No further breakdown recommended.

5.5 Student Support

Definition: These activity centers consist of those activities established within the institution to provide convenience services to the student body or services to special student groups. For many institutions, it will often be difficult to distinguish between convenience services provided for the benefit of students and those provided for faculty and staff, e.g., a central cafeteria for both. In such instances, the activity center will typically be identified to the student support center unless the primary intent is clearly to provide services for the faculty and staff.

Application: Costs and other items of information related to activities such as student housing, health services, veterans assistance, disadvantaged assistance, food services, and retail services and concessions are included here. Typically, information regarding bookstores, student health centers, residential complexes, and cafeterias is also classified under this category.

Limitations: Excluded is information related to the provision of similar activities for members of the staff.

Coding Detail: The following activity centers are recommended: Student Food Services (5.5.7310); Student Health Services (5.5.7320); Student Housing Services (5.5.7330); Student Retail Services and Concessions (5.5.7340); Special Student Services (5.5.7400).

5.6 Student Admissions and Records

Definition: This activity center consists of those activities established within the institution to provide admission and registration services to students. This activity center typically maintains the permanent academic records of the students.

Application: Costs and other information related to the activities of student admission's office and the registrar's office are included in this activity center. (Note: In the *Program Classification Structure* the function, student admissions and records, is included in subprogram 6.3, General Administrative Services.)

Coding Detail: No further breakdown recommended.

NOTE: The overall objective of the activity centers contained in subprograms 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, and 6.8 defined below is to maintain the institution's organizational effectiveness and continuity.

6.1 Executive Management

Definition: These activity centers consist of all central executive level activities and other activities concerned with the management and long-range planning of the entire institution, as contrasted to any one program within the institution.

Application: Costs and other information pertaining to such central operations activities as legal services, executive direction (the governing board, the chief and senior executive officers), analytical studies, institutional research, long-range planning, etc., are included here.

Limitations: Information regarding administrative data processing activities, logistical services, and physical plant operations is excluded.

Coding Detail: The following activity centers are recommended: Executive Direction (6.1.8110); Planning and Programming (6.1.8120); Legal Services (6.1.8130).

6.2 Fiscal Operations

Definition: These activity centers consist of those central operations activities related to fiscal control, investments, and functional activities related to the fiscal operations of the institution.

Application: Costs and related information pertaining to the activities of the fiscal operations of the institution are included here.

Limitations: Information regarding financial aid and counseling activities for the student body is excluded.

Coding Detail: The following activity centers are recommended: Fiscal Control (6.2.8140); Investments (6.2.8150); Financial Operations (6.2.8210).

6.3 General Administrative Services

Definition: These activity centers consist of those activities established to provide central administrative services, e.g., administrative data processing, and activity centers related to employee personnel and records.

Application: Costs and related information pertaining to general administrative activities such as administrative data processing are classified here.

Limitations: Information concerning data processing activities that serve the primary programs explicitly is more appropriately coded under the computing support activity center (4.4). Excluded from this subprogram is information pertaining to student admissions and records which is categorized separately and coded 5.6.

Coding Detail: The following activity centers are recommended: Administrative Support (6.3.8160); Space Management (6.3.8165); Employee Personnel and Records (6.3.8230).

6.4 Logistical Services

Definition: These activity centers consist of activities established to provide procurement services, supply and maintenance of provisions, and the orderly movement of support materials for the campus operation. Included within logistical services are central activities related to the environmental health and safety of the staff and students.

Application: Costs and other items of information regarding activities such as central stores, central laundry, and campus enforcement officers are included in this category.

Limitations: Excluded is information pertaining to the logistical service activities of special organizational units within the institution.

Coding Detail: The following activity centers are recommended: Environmental Health and Safety (6.4.8170); Purchasing and Materials (6.4.8240); Mail and Distribution (6.4.8251); Telephone and Telegraph (6.4.8252); Printing and Reproduction (6.4.8253); Transportation Services (6.4.8260).

6.5 Physical Plant Operations and Maintenance

Definition: These activity centers consist of those activities established to provide services related to the campus grounds and facilities.

Application: Costs and related information about activities related to maintaining existing grounds and facilities, operating utility services, creating new facilities and/or modifying existing facilities are included here. For the purpose of information exchange, all chargebacks of utilities expenditures to specific organizational units are to be aggregated in this activity center.

Limitations: This category includes only the information about the activities of operating physical plant departments. Capital expenditures for plant expansion and modification should be excluded.

Coding Detail: The following activity centers are recommended: Utilities (6.5.8310); Building Maintenance (6.5.8320); Grounds Maintenance (6.5.8330); Custodial Services (6.5.8340); Facility Remodeling (6.5.8420); Landscaping and Grounds Modification (6.5.8430).

6.6 Faculty and Staff Services

Definition: These activity centers consist of those activities established to provide support services for the faculty and staff, and those activities for which the primary intent of their establishement is to provide support and convenience services to the faculty and staff.

Application: Costs and other information about activities such as faculty clubs and staff housing are to be included in this category.

Limitations: Information pertaining to service activities where primary intent is not obvious, e.g., a central cafeteria, should be classified under the student support activity centers (5.5).

Coding Detail: The following activity centers are recommended: Faculty Food Services (6.6.7310); Faculty Health Services (6.6.7320); Faculty Housing Services (6.6.7330); Faculty Retail Services (6.6.7340).

6.7 Community Relations

Definition: These activity centers consist of those activities that have been established to maintain relationships with the general community, the institution's alumni, or other constituents, and to conduct activities related to development and fund raising.

Application: Costs and related information about community relations activities should be classified here, e.g. the alumni office, the public relations office.

Limitations: Information about activities established primarily to provide public service to the community is excluded.

Coding Detail: The following activity centers are recommended: Alumni Relations (6.7.8175); Community Relations (6.8.8180); Development (6.7.8185).

6.8 Capital Cost--Buildings and Land Improvements

Definition: This activity center consists of all capital costs attributed to buildings and land improvements (both owned and leased) used by the institution in operating its programs.

Application: The capital costs can be measured in one of two ways: (a) if the buildings and land improvements are leased, the annual capital cost is equivalent to the total rental expenditures; (b) if the buildings and land improvements are owned by the institution, the annual capital cost is defined as the current depreciation of the asset plus the interest foregone on the investment in that asset.

Coding Detail: No further breakdown recommended.

6.9 Capital Cost--Equipment

Definition: This activity center consists of all capital costs attributed to equipment (both owned and leased) used by the institution in operating its programs.

Application: The capital costs can be measured in one of two ways: (a) if the equipment is leased, the annual capital cost is equivalent to the total rental expenditures; (b) if the equipment is owned by the institution, the annual capital cost is defined as the current depreciation of the asset plus the interest foregone on the investment in that asset.

Limitations: This activity center should not be used by those institutions that have the capability to calculate their capital equipment costs by individual activity center.

Coding Detail: No further breakdown recommended.

7.0 Independent Operations

Definition: These activity centers consist of activities that are independent of or unrelated to the primary missions of the institution. Included are operations owned or controlled by the institution, e.g., a bowling alley. Included also are operations controlled or operated by outside agencies but housed or otherwise supported by the institution.

Application: These activity centers are provided to give the institution the capability to classify independent activities. In terms of costing it will be neither a support activity center nor a final cost objective. Thus, wherever possible all costs and related information including utilities, salaries, audio/visual services related to independent operations, should be lodged in this activity center during the account crossover.

Coding Detail: The following activity centers are recommended: Institutional Operations (7.1); Outside Agencies (7.2).

8.1 Scholarships

Definition: An activity center that includes all expenditures for undergraduate student aid.

Application: Expenditure information in this activity center should include financial aid to students in the form of tuition and fee remissions, as well as scholarships and gifts.

Limitations: This activity center does not include student loans nor expenditure for work/study. It also does not include remission of tuition and fees as a result of either family of staff status which should be classified as fringe benefits rather than student aid.

Coding Detail: No further breakdown recommended.

8.2 Fellowships

Definition: An activity center that includes all monies awarded to graduate students (either predoctoral or postdoctoral) to encourage study in their field of interest.

Application: Normally, fellowships are cash awards (i.e., outright gifts) and are not contingent upon services rendered by the student as are teaching and research assistantships. This activity center also includes any funds from specialized training grants which are specifically designated for stipends, as well as tuition waivers or refunds.

Limitations: If services are required in exchange for the fellowship, that portion expended by the institution should be classified as direct costs to the department or organizational unit to which services are rendered.

Coding Detail: No further breakdown recommended.

9.0 Hospitals

Definition: This activity center includes all activities associated with the operation of the hospital, including nursing services, other professional services, general services, administrative services, and fiscal services.

Application: Costs and related information pertaining to the operation of a hospital should be included here.

Limitations: Those activities which take place within the hospital, but which are more appropriately categorized as instruction, research, or public service should be excluded from this category.

Coding Detail: No further breakdown recommended.

APPENDIX C: THE HEGIS TAXONOMY

SECTION 1: SUMMARY

In view of the length and comprehensive nature of the Taxonomy of Instructional Programs,* it may sometimes be difficult to locate the appropriate reporting title for a specific instructional program. To facilitate the location process, a summary list of the program categories (discipline categories) is shown below.

PROGRAM (DISCIPLINE) CATEGORIES

(Conventional academic subdivisions of knowledge and training)

Code	
0000	GENERAL
0100	AGRICULTURE and NATURAL RESOURCES
0200	ARCHITECTURE and ENVIRONMENTAL DESIGN
0300	AREA STUDIES
0400	BIOLOGICAL SCIENCES
0500	BUSINESS and MANAGEMENT
0600	COMMUNICATIONS
0700	COMPUTER and INFORMATION SCIENCES
0800	EDUCATION
0900	ENGINEERING
1000	FINE and APPLIED ARTS
1100	FOREIGN LANGUAGES
1200	HEALTH PROFESSIONS
1300	HOME ECONOMICS
1400	LAW
1500	LETTERS
1600	LIBRARY SCIENCE
1700	MATHEMATICS
1800	MILITARY SCIENCES
1900	PHYSICAL SCIENCES
2000	PSYCHOLOGY
2100	PUBLIC AFFAIRS and SERVICES
2200	SOCIAL SCIENCES
2300	THEOLOGY
4900	INTERDISCIPLINARY STUDIES

(Technological and occupational specialties related to curriculums leading to associate degrees and other awards below the baccalaureate)

Code	
5000	BUSINESS and COMMERCE TECHNOLOGIES
5100	DATA PROCESSING TECHNOLOGIES
5200	HEALTH SERVICES and PARAMEDICAL TECHNOLOGIES
5300	MECHANICAL and ENGINEERING TECHNOLOGIES
5400	NATURAL SCIENCE TECHNOLOGIES
5500	PUBLIC SERVICE RELATED TECHNOLOGIES

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*Source: Robert A. Huff and Marjorie O. Chandler, A Taxonomy of Instructional Programs in Higher Education (Washington, D. C.: National Center for Educational Statistics, Office of Education, 1970).

SECTION 2: NUMERICAL LISTING OF HEGIS DISCIPLINES

PROGRAM (DISCIPLINE) SUBCATEGORIES

0000 GENERAL USE

0100 AGRICULTURE AND NATURAL RESOURCES

- 0101 Agriculture, General
- 0102 Agronomy (Field Crops, and Crop Management)
- 0103 Soils Science (Management and Conservation)
- 0104 Animal Science (Husbandry)
- 0105 Dairy Science (Husbandry)
- 0106 Poultry Science
- 0107 Fish, Game, and Wildlife Management
- 0108 Horticulture (Fruit and Vegetable Production)
- 0109 Ornamental Horticulture (Floriculture, Nursery Science)
- 0110 Agricultural and Farm Management
- 0111 Agricultural Economics
- 0112 Agricultural Business
- 0113 Food Science and Technology
- 0114 Forestry
- 0115 Natural Resources Management
- 0116 Agriculture and Forestry Technologies
- 0117 Range Management
- 0199 Other, Specify

0200 ARCHITECTURE AND ENVIRONMENTAL DESIGN

- 0201 Environmental Design, General
- 0202 Architecture
- 0203 Interior Design
- 0204 Landscape Architecture
- 0205 Urban Architecture
- 0206 City, Community, and Regional Planning
- 0299 Other, Specify

0300 AREA STUDIES

- 0301 Asian Studies, General
- 0302 East Asian Studies
- 0303 South Asian (India, etc.) Studies
- 0304 Southeast Asian Studies
- 0305 African Studies
- 0306 Islamic Studies
- 0307 Russian and Slavic Studies
- 0308 Latin American Studies
- 0309 Middle Eastern Studies
- 0310 European Studies, General
- 0311 Eastern European Studies
- 0312 West European Studies
- 0313 American Studies
- 0314 Pacific Area Studies
- 0399 Other, Specify

0400 BIOLOGICAL SCIENCES

- 0401 Biology, General
- 0402 Botany, General
- 0403 Bacteriology
- 0404 Plant Pathology
- 0405 Plant Pharmacology
- 0406 Plant Physiology
- 0407 Zoology, General
- 0408 Pathology, Human and Animal
- 0409 Pharmacology, Human and Animal
- 0410 Physiology, Human and Animal
- 0411 Microbiology
- 0412 Anatomy
- 0413 Histology
- 0414 Biochemistry
- 0415 Biophysics
- 0416 Molecular Biology
- 0417 Cell Biology (Cytology, Cell Physiology)
- 0418 Marine Biology
- 0419 Biometrics and Biostatistics
- 0420 Ecology
- 0421 Entomology
- 0422 Genetics
- 0423 Radiobiology
- 0424 Nutrition, Scientific (exclude Nutrition in Home Economics and Dietetics)

0425 Neurosciences
0426 Toxicology
0427 Embryology
0499 Other, Specify

0500 BUSINESS AND MANAGEMENT

0501 Business and Commerce, General
0502 Accounting
0503 Business Statistics
0504 Banking and Finance
0505 Investments and Securities
0506 Business Management and Administration
0507 Operations Research
0508 Hotel and Restaurant Management
0509 Marketing and Purchasing
0510 Transportation and Public Utilities
0511 Real Estate
0512 Insurance
0513 International Business
0514 Secretarial Studies
0515 Personnel Management
0516 Labor and Industrial Relations
0517 Business Economics
0599 Other, Specify

0600 COMMUNICATIONS

0601 Communications, General
0602 Journalism (Printed Media)
0603 Radio/TV
0604 Advertising
0605 Communication Media (use of videotape, film, etc., oriented specifically toward radio/TV)
0699 Other, Specify

0700 COMPUTER AND INFORMATION SCIENCES

0701 Computer and Information Sciences, General
0702 Information Sciences and Systems
0703 Data Processing
0704 Computer Programming
0705 Systems Analysis
0799 Other, Specify

0800 EDUCATION

0801 Education, general
0802 Elementary education, general
0803 Secondary education, general
0804 Junior high school education
0805 Higher education, general
0806 Junior and community college education
0807 Adult and continuing education
0808 Special education, general
0809 Administration of special education
0810 Education of the mentally retarded
0811 Education of the gifted
0812 Education of the deaf
0813 Education of the culturally disadvantaged
0814 Education of the visually handicapped
0815 Speech correction
0816 Education of the emotionally disturbed
0817 Remedial education
0818 Special learning disabilities
0819 Education of the physically handicapped
0820 Education of the multiple handicapped
0821 Social foundations (history and philosophy of education)
0822 Educational psychology (include learning theory)
0823 Pre-elementary education (kindergarten)
0824 Educational statistics and research
0825 Educational testing, evaluation, and measurement
0826 Student personnel (counseling and guidance)
0827 Educational administration
0828 Educational supervision
0829 Curriculum and instruction
0830 Reading education (methodology and theory)
0831 Art education (methodology and theory)
0832 Music education (methodology and theory)
0833 Mathematics education (methodology and theory)
0834 Science education (methodology and theory)
0835 Physical education
0836 Driver and safety education
0837 Health education (include family life education)
0838 Business, commerce, and distributive education
0839 Industrial arts, vocational, and technical education
0899 Other, specify

0900 ENGINEERING

0901 Engineering, General
0902 Aerospace, Aeronautical, and Astronautical Engineering
0903 Agricultural Engineering
0904 Architectural Engineering
0905 Bioengineering and Biomedical Engineering
0906 Chemical Engineering (include Petroleum Refining)
0907 Petroleum Engineering (exclude Petroleum Refining)
0908 Civil, Construction, and Transportation Engineering
0909 Electrical, Electronics, and Communications Engineering
0910 Mechanical Engineering
0911 Geological Engineering
0912 Geophysical Engineering
0913 Industrial and Management Engineering
0914 Metallurgical Engineering
0915 Materials Engineering
0916 Ceramic Engineering
0917 Textile Engineering
0918 Mining and Mineral Engineering
0919 Engineering Physics
0920 Nuclear Engineering
0921 Engineering Mechanics
0922 Environmental and Sanitary Engineering
0923 Naval Architecture and Marine Engineering
0924 Ocean Engineering

0925 Engineering Technologies
0999 Other, Specify

1000 FINE AND APPLIED ARTS
1001 Fine Arts, General
1002 Art (Painting, Drawing, Sculpture)
1003 Art History and Appreciation
1004 Music (Performing, Composition, Theory)
1005 Music (Liberal Arts Program)
1006 Music History and Appreciation (Musicology)
1007 Dramatic Arts
1008 Dance
1009 Applied Design (Ceramics, Weaving, Textile Design, Fashion Design, Jewelry, Metalsmithing, Interior Decoration, Commercial Art)
1010 Cinematography
1011 Photography
1099 Other, Specify

1100 FOREIGN LANGUAGES
1101 Foreign Languages, General
1102 French
1103 German
1104 Italian
1105 Spanish
1106 Russian
1107 Chinese
1108 Japanese
1109 Latin
1110 Greek, classical
1111 Hebrew
1112 Arabic
1113 Indian (Asiatic)
1114 Scandinavian Languages
1115 Slavic Languages (other than Russian)
1116 African Languages (non-Semitic)
1199 Other, Specify

1200 HEALTH PROFESSIONS
1201 Health Professions, General
1202 Hospital and Health Care Administration
1203 Nursing
1204 Dentistry
1205 Dental Specialties
1206 Medicine
1207 Medical Specialties
1208 Occupational Therapy
1209 Optometry
1210 Osteopathic Medicine
1211 Pharmacy
1212 Physical Therapy
1213 Dental Hygiene
1214 Public Health
1215 Medical Record Librarianship
1216 Podiatry or Podiatric Medicine
1217 Biomedical Communication
1218 Veterinary Medicine
1219 Veterinary Medicine Specialties
1220 Speech Pathology and Audiology
1221 Chiropractic
1222 Clinical Social Work
1223 Medical Laboratory Technologies
1224 Dental Technologies
1225 Radiologic Technologies
1299 Other, Specify

1300 HOME ECONOMICS
1301 Home Economics, General
1302 Home Decoration and Home Equipment
1303 Clothing and Textiles
1304 Consumer Economics and Home Management
1305 Family Relations and Child Development
1306 Foods and Nutrition (include Dietetics)
1307 Institutional Management and Cafeteria Management
1399 Other, Specify

1400 LAW
1401 Law, General
1499 Other, Specify

1500 LETTERS
1501 English, General
1502 Literature, English
1503 Comparative Literature
1504 Classics
1505 Linguistics (include Phonetics, Semantics, and Philology)
1506 Speech, Debate, and Forensic Science (Rhetoric and Public Address)
1507 Creative Writing
1508 Teaching of English as a Foreign Language
1509 Philosophy
1510 Religious Studies (exclude Theological Professions)
1599 Other, Specify

1600 LIBRARY SCIENCE
1601 Library Science, General
1699 Other, Specify

1700 MATHEMATICS
1701 Mathematics, General
1702 Statistics, Mathematical and Theoretical
1703 Applied Mathematics
1799 Other, Specify

1800 MILITARY SCIENCES
1801 Military Science (Army)
1802 Naval Science (Navy, Marines)
1803 Aerospace Science (Air Force)
1899 Other, Specify

1900 PHYSICAL SCIENCES
1901 Physical Sciences, General
1902 Physics, General (exclude Biophysics)
1903 Molecular Physics
1904 Nuclear Physics
1905 Chemistry, General (exclude Biochemistry)
1906 Inorganic Chemistry
1907 Organic Chemistry
1908 Physical Chemistry
1909 Analytical Chemistry
1910 Pharmaceutical Chemistry
1911 Astronomy
1912 Astrophysics
1913 Atmospheric Sciences and Meteorology
1914 Geology
1915 Geochemistry
1916 Geophysics and Seismology
1917 Earth Sciences, General
1918 Paleontology
1919 Oceanography
1920 Metallurgy
1999 Other, Specify

2000 PSYCHOLOGY

2001	Psychology, General
2002	Experimental Psychology (animal and human)
2003	Clinical Psychology
2004	Psychology for Counseling
2005	Social Psychology
2006	Psychometrics
2007	Statistics in Psychology
2008	Industrial Psychology
2009	Developmental Psychology
2010	Physiological Psychology
2099	Other, Specify

2100 PUBLIC AFFAIRS AND SERVICES

2101	Community Services, General
2102	Public Administration
2103	Parks and Recreation Management
2104	Social Work and Helping Services (other than Clinical Social Work)
2105	Law Enforcement and Corrections
2106	International Public Service (other than Diplomatic Service)
2199	Other, Specify

2200 SOCIAL SCIENCES

2201	Social Sciences, General
2202	Anthropology
2203	Archeology
2204	Economics
2205	History
2206	Geography
2207	Political Science and Government
2208	Sociology
2209	Criminology
2210	International Relations
2211	Afro-American (Black Culture) Studies
2212	American Indian Cultural Studies
2213	Mexican-American Cultural Studies
2214	Urban Studies
2215	Demography
2299	Other, Specify

2300 THEOLOGY

2301	Theological Professions, General
2302	Religious Music
2303	Biblical Languages
2304	Religious Education
2399	Other, Specify

4900 INTERDISCIPLINARY STUDIES

4901	General Liberal Arts and Sciences
4902	Biological and Physical Sciences
4903	Humanities and Social Sciences
4904	Engineering and Other Disciplines
4999	Other, Specify

5000 BUSINESS AND COMMERCE TECHNOLOGIES

5001	Business and Commerce Technologies, General
5002	Accounting Technologies
5003	Banking and Finance Technologies
5004	Marketing, Distribution, Purchasing, Business, and Industrial Management Technologies
5005	Secretarial Technologies (include Office Machines Training)
5006	Personal Service Technologies (Stewardess, Cosmetologist, etc.)
5007	Photography Technologies
5008	Communications and Broadcasting Technologies (Radio/TV, Newspapers)
5009	Printing and Lithography Technologies
5010	Hotel and Restaurant Management Technologies
5011	Transportation and Public Utility Technologies
5012	Applied Arts, Graphic Arts, and Fine Arts Technologies (include advertising design)
5099	Other, Specify

5100 DATA PROCESSING TECHNOLOGIES

5101	Data Processing Technologies, General
5102	Key Punch Operator and Other Input Preparation Technologies
5103	Computer Programmer Technologies
5104	Computer Operator and Peripheral Equipment Operation Technologies
5105	Data Processing Equipment Maintenance Technologies
5199	Other, Specify

5200 HEALTH SERVICES AND PARAMEDICAL TECHNOLOGIES

5201	Health Services Assistant Technologies, General
5202	Dental Assistant Technologies
5203	Dental Hygiene Technologies
5204	Dental Laboratory Technologies
5205	Medical or Biological Laboratory Assistant Technologies
5206	Animal Laboratory Assistant Technologies
5207	Radiologic Technologies (X-Ray, etc.)
5208	Nursing, R.N. (less than 4-year program)
5209	Nursing, Practical (L.P.N. or L.V.N.—less than 4-year program)
5210	Occupational Therapy Technologies
5211	Surgical Technologies
5212	Optical Technologies (include Ocular Care, Ophthalmic, Optometric Technologies)
5213	Medical Record Technologies
5214	Medical Assistant and Medical Office Assistant Technologies
5215	Inhalation Therapy Technologies
5216	Psychiatric Technologies (include Mental Health Aide Programs)
5217	Electro Diagnostic Technologies (include E.K.G., E.E.G., etc.)
5218	Institutional Management Technologies (Rest Home, etc.)
5219	Physical Therapy Technologies
5299	Other, Specify

5300 MECHANICAL AND ENGINEERING TECHNOLOGIES

5301	Mechanical and Engineering Technologies, General
5302	Aeronautical and Aviation Technologies
5303	Engineering Graphics (Tool and Machine Drafting and Design)
5304	Architectural Drafting Technologies
5305	Chemical Technologies (include Plastics)
5306	Automotive Technologies
5307	Diesel Technologies
5308	Welding Technologies

- 5309 Civil Technologies (Surveying, Photogrammetry, etc.)
- 5310 Electronics and Machine Technologies (TV, Appliance, Office Machine Repair, etc.)
- 5311 Electromechanical Technologies
- 5312 Industrial Technologies
- 5313 Textile Technologies
- 5314 Instrumentation Technologies
- 5315 Mechanical Technologies
- 5316 Nuclear Technologies
- 5317 Construction and Building Technologies (Carpentry, Electrical Work, Plumbing, Sheet Metal, Air Conditioning, Heating, etc.)
- 5399 Other, Specify

5400 NATURAL SCIENCE TECHNOLOGIES

- 5401 Natural Science Technologies, General
- 5402 Agriculture Technologies (include Horticulture)
- 5403 Forestry and Wildlife Technologies (include Fisheries)
- 5404 Food Services Technologies
- 5405 Home Economics Technologies
- 5406 Marine and Oceanographic Technologies
- 5407 Laboratory Technologies, General
- 5408 Sanitation and Public Health Inspection Technologies (Environmental Health Technologies)
- 5499 Other, Specify

5500 PUBLIC SERVICE RELATED TECHNOLOGIES

- 5501 Public Service Technologies, General
- 5502 Bible Study or Religion-Related Occupations
- 5503 Education Technologies (Teacher Aide and 2-year Teacher Training Programs)
- 5504 Library Assistant Technologies
- 5505 Police, Law Enforcement, Corrections Technologies
- 5506 Recreation and Social Work Related Technologies
- 5507 Fire Control Technology
- 5508 Public Administration and Management Technologies
- 5599 Other, Specify

SECTION 3: ALPHABETICAL LISTING OF HEGIS DISCIPLINES

Part 1:

CONVENTIONAL ACADEMIC SUBDIVISIONS OF KNOWLEDGE AND TRAINING

Title	*Code*
Accounting	0502
Administration, business	0506
Administration, educational	0827
Administration, public	2102
Administration, special education	0809
Adult education	0807
Advertising	0604
Aeronautical engineering	0902
Aerospace engineering	0902
Aerospace science	1803
African languages (non-Semitic)	1116
African studies	0305
Afro-American studies	2211
Agricultural business	0112
Agricultural economics	0111
Agricultural engineering	0903
Agricultural management	0110
Agriculture, general	0101
Agriculture technologies	0116
Agronomy	0102
American Indian cultural studies	2212
American studies	0313
Analytical chemistry	1909
Anatomy	0412
Animal science	0104
Anthropology	2202
Applied design	1009
Applied mathematics	1703
Arabic	1112
Archeology	2203
Architectural engineering	0904
Architecture	0202
Architecture, naval	0923
Art	1002
Art appreciation	1003
Art, commercial	1009
Art education	0831
Art history	1003
Asian studies, general	0301
Astronautical engineering	0902
Astronomy	1911
Astrophysics	1912
Atmospheric sciences	1913
Audiology	1220
Bacteriology	0403
Banking	0504
Biblical languages	2303
Biochemistry	0414
Bioengineering	0905
Biological and physical sciences (interdisciplinary)	4902
Biology, cellular	0417
Biology, general	0401
Biology, marine	0418
Biology, molecular	0416
Biomedical communication	1217
Biomedical engineering	0905
Biometrics	0419
Biophysics	0415
Biostatistics	0419
Black culture studies	2211
Botany, general	0402
Business administration	0506
Business, agricultural	0112
Business economics	0517
Business education	0838
Business, general	0501
Business, international	0513
Business management	0506
Business statistics	0503
Cafeteria management	1307
Catalan	1199
Cell biology	0417
Cell physiology	0417
Ceramic engineering	0916
Ceramics	1009
Chemical engineering	0906
Chemistry, general	1905
Child development	1305
Chinese	1107
Chiropractic	1221
Cinematography	1010
City planning	0206
Civil engineering	0908
Classics	1504
Clinical psychology	2003
Clinical social work	1222
Clothing	1303
Commerce education	0838
Commerce, general	0501
Commercial art	1009
Communication media	0605
Communications, general	0601
Communications engineering	0909
Community college education	0806
Community planning	0206
Community services, general	2101
Comparative literature	1503
Computer programming	0704
Computer sciences, general	0701
Construction engineering	0908
Consumer economics	1304
Continuing education	0807
Corrections	2105
Counseling, educational	0826
Counseling, psychology for	2004
Creative writing	1507
Criminology	2209
Crop management	0102
Curriculum	0829
Cytology	0417
Dairy sciences	0105
Dance	1008
Danish	1114
Data processing	0703
Debate	1506

Demography	2215
Dental hygiene	1213
Dental specialties	1205
Dental technologies	1224
Dentistry, D.D.S. or D.M.D. degree	1204
Developmental psychology	2009
Dietetics	1306
Distributive education	0838
Dramatic arts	1007
Drawing	1002
Driver education	0836
Earth sciences, general	1917
East Asian studies	0302
Eastern European studies	0311
Ecology	0420
Economics	2204
Economics, agricultural	0111
Economics, business	0517
Education of the culturally disadvantaged	0813
Education of the deaf	0812
Education of the emotionally disturbed	0816
Education, general	0801
Education of the gifted	0811
Education of mentally retarded	0810
Education of the multiple handicapped	0820
Education of the physically handicapped	0819
Education, religious	2304
Education of the visually handicapped	0814
Educational administration	0827
Educational evaluation	0825
Educational measurement	0825
Educational psychology	0822
Educational research	0824
Educational statistics	0824
Educational supervision	0828
Educational testing	0825
Electrical engineering	0909
Electronics engineering	0909
Elementary education, general	0802
Embryology	0427
Engineering, general	0901
Engineering mechanics	0921
Engineering and other disciplines (interdisciplinary)	4904
Engineering physics	0919
Engineering technologies	0925
English as a foreign language	1508
English, general	1501
English, literature	1502
Entomology	0421
Environmental design, general	0201
Environmental engineering	0922
European studies, general	0310
Experimental psychology (animal and human)	2002
Family life education	0837
Family relations	1305
Farm management	0110
Fashion design	1009
Field crops	0102
Finance	0504
Fine arts, general	1001
Finnish	1199
Fish management	0107
Floriculture	0109
Foods and nutrition	1306
Food science	0113
Food technology	0113
Foreign languages, general	1101
Forensic science	1506
Forestry	0114
Forestry technologies	0116
French	1102
Fruit production	0108
Game management	0107
General liberal arts and sciences (interdisciplinary)	4901
Genetics	0422
Geochemistry	1915
Geography	2206
Geological engineering	0911
Geology	1914
Geophysical engineering	0912
Geophysics	1916
German	1103
Government	2207
Greek, classical	1110
Guidance, education	0826
Heatlh care administration	1202
Health education	0837
Health professions, general	1201
Hebrew	1111
Helping services	2104
Higher education, general	0805
Histology	0413
History	2205
History of education	0821
Home decoration	1302
Home economics, general	1301
Home equipment	1302
Home management	1304
Horticulture	0108
Hospital administration	1202
Hotel management	0508
Humanities and social sciences (interdisciplinary)	4903
Husbandry, animal	0104
Husbandry, dairy	0105
Ichthyology	0499
India studies	0303
Indian (Asiatic)	1113
Industrial arts education	0839
Industrial engineering	0913
Industrial psychology	2008
Industrial relations	0516
Information sciences	0702
Information sciences, general	0701
Information systems	0702
Inorganic chemistry	1906
Institutional management	1307
Instruction	0829
Insurance	0512
Interior decoration	1009
Interior design	0203
International business	0513
International public service	2106
International relations	2210
Investments	0505
Islamic studies	0306
Italian	1104

Japanese	1108
Jewelry	1009
Journalism	0602
Junior college education	0806
Junior high school education	0804

Kindergarten education	0823
Korean	1199

Labor relations	0516
Landscape architecture	0204
Latin	1109
Latin American studies	0308
Law enforcement	2105
Law, general	1401
Learning theory	0822
Liberal arts and sciences (interdisciplinary)	4901
Library science, general	1601
Limnology	0499
Linguistics	1505
Literature, comparative	1503
Literature, English	1502

Management, business	0506
Management, engineering	0913
Marine biology	0418
Marine engineering	0923
Marketing	0509
Materials engineering	0915
Mathematics, applied	1703
Mathematics, education	0833
Mathematics, general	1701
Mathematics, statistics	1702
Mechanical engineering	0910
Medical laboratory technologies	1223
Medical record librarianship	1215
Medical specialties	1207
Medicine, M.D. degree	1206
Metallurgical engineering	0914
Metallurgy	1920
Metalsmithing	1009
Meteorology	1913
Mexican-American cultural studies	2213
Microbiology	0411
Middle Eastern studies	0309
Military science	1801
Mineral engineering	0918
Mining engineering	0918
Molecular biology	0416
Molecular physics	1903
Music (liberal arts program)	1005
Music appreciation	1006
Music, composition	1004
Music education	0832
Music history	1006
Music, performing	1004
Music, theory	1004
Musicology	1006

Natural resources management	0115
Naval architecture	0923
Naval science	1802
Neurosciences	0425
Norwegian	1114
Nuclear engineering	0920
Nuclear physics	1904
Nursery science	0109
Nursing (baccalaureate and higher programs)	1203
Nutrition, scientific	0424

Occupational therapy	1208
Ocean engineering	0924
Oceanography	1919
Operations research	0507
Optometry	1209
Organic chemistry	1907
Ornamental horticulture	0109
Ornithology	0499
Osteopathic medicine, D.O. degree	1210

Pacific area studies	0314
Painting	1002
Paleontology	1918
Parasitology	0499
Park management	2103
Pathology, animal	0408
Pathology, human	0408
Pathology, plant	0404
Personnel management	0515
Petroleum engineering	0907
Petroleum refining	0906
Pharmaceutical chemistry	1910
Pharmacology, animal	0409
Pharmacology, human	0409
Pharmacology, plant	0405
Pharmacy	1211
Philology	1505
Philosophy	1509
Philosophy of education	0821
Phonetics	1505
Photography	1011
Physical chemistry	1908
Physical education	0835
Physical sciences, general	1901
Physical therapy	1212
Physics, general	1902
Physiological psychology	2010
Physiology, animal	0410
Physiology, human	0410
Physiology, plant	0406
Plant pathology	0404
Plant pharmacology	0405
Plant physiology	0406
Podiatry	1216
Political science	2207
Poultry science	0106
Pre-elementary education	0823
Programming, computer	0704
Psychology, clinical	2003
Psychology for counseling	2004
Psychology, developmental	2009
Psychology, education	0822
Psychology, general	2001
Psychology, industrial	2008
Psychology, physiological	2010
Psychology, social	2005
Psychometrics	2006
Public address	1506
Public administration	2102
Public health	1214
Public utilities	0510
Purchasing	0509

Radio	0603
Radiobiology	0423
Radiologic technologies	1225
Range management	0117
Reading education	0830
Real estate	0511
Recreation management	2103
Regional planning	0206
Rehabilitation services	1222
Religious education	2304
Religious music	2302
Religious studies	1510
Remedial education	0817
Restaurant management	0508
Rhetoric	1506
Russian	1106
Russian studies	0307
Safety education	0836
Sanitary engineering	0922
Sanskrit	1199
Scandinavian languages	1114
Science education	0834
Sculpture	1002
Secondary education, general	0803
Secretarial studies	0514
Securities	0505
Seismology	1916
Semantics	1505
Slavic languages (other than Russian)	1115
Slavic studies	0307
Social foundations of education	0821
Social sciences, general	2201
Social psychology	2005
Social work	2104
Sociology	2208
Soil conservation	0103
Soil management	0103
Soil science	0103
South Asian studies	0303
Southeast Asian studies	0304
Spanish	1105
Special education, general	0808
Special learning disabilities	0818
Speech	1506
Speech correction	0815
Speech pathology	1220
Statistics, mathematical and theoretical	1702
Statistics in psychology	2007
Student personnel	0826
Swedish	1114
Systems analysis	0705
Systems, information	0702
Teaching of English as a foreign language	1508
Technical education	0839
Television	0603
Textile design	1009
Textile engineering	0917
Textiles, home economics	1303
Theological professions, general	2301
Toxicology	0426
Transportation	0510
Transportation engineering	0908
Urban architecture	0205
Urban studies	2214
Vegetable production	0108
Veterinary medicine, D.V.M. degree	1218
Veterinary medicine specialties	1219
Vietnamese	1199
Vocational education	0839
Weaving	1009
West European studies	0312
Wildlife management	0107
Writing, creative	1507
Zoology, general	0407

Part II:

TECHNOLOGICAL AND OCCUPATIONAL CURRICULUMS LEADING TO ASSOCIATE DEGREES AND OTHER AWARDS BELOW THE BACCALAUREATE

Title	*Code*
Accounting technologies	5002
Advertising design technologies	5012
Advertising technologies	5004
Aeronautical technologies	5302
Agriculture technologies	5402
Air conditioning technologies	5317
Airport management technologies	5004
Animal laboratory assistant technologies	5206
Appliance repair technologies	5310
Applied arts technologies	5012
Architectural drafting technologies	5304
Automotive technologies	5306
Aviation technologies	5302
Banking technologies	5003
Bible study	5502
Biological laboratory assistant technologies	5205
Broadcasting technologies	5008
Building technologies	5317
Business management technologies	5004
Business technologies, general	5001
Carpentry technologies	5317
Chemical technologies	5305
Civil technologies	5309
Commerce technologies, general	5001
Communications technologies	5008
Computer operator technologies	5104
Computer, peripheral equipment operation technologies	5104
Computer programmer technologies	5103
Construction technologies	5317
Corrections technologies	5505
Cosmetologist	5006

Data processing equipment maintenance technologies	5105
Data processing technologies, general	5101
Dental assistant technologies	5202
Dental hygiene technologies	5203
Dental laboratory technologies	5204
Diesel technologies	5307
Distribution technologies	5004
Drafting, architectural	5304
Education technologies	5503
Electrician technologies	5317
Electro diagnostic technologies	5217
Electromechanical technologies	5311
Electronics and machine technologies	5310
Engineering graphics	5303
Engineering technologies, general	5301
Environmental health technologies	5408
Finance technologies	5003
Fine arts technologies	5012
Fire control technology	5507
Fisheries technologies	5403
Food services technologies	5404
Forestry technologies	5403
Graphic arts technologies	5012
Health services assistant technologies, general	5201
Heating technologies	5317
Home economics technologies	5405
Horticulture technologies	5402
Hospital food service technologies	5404
Hotel management technologies	5010
Industrial management technologies	5004
Industrial technologies	5312
Inhalation therapy technologies	5215
Input preparation technologies	5102
Institutional management technologies	5218
Instrumentation technologies	5314
Insurance technologies	5004
Key punch operator technologies	5102
Laboratory technologies, general	5407
Landscape technologies	5402
Law enforcement technologies	5505
Library assistant technologies	5504
Lithography technologies	5009
Machine drafting and design technologies	5303
Machine repair technologies	5310
Marina equipment technologies	5004
Marine technologies	5406
Marketing technologies	5004
Mechanical technologies	5315
Mechanical technologies, general	5301
Medical assistant technologies	5214
Medical laboratory assistant technologies	5205
Medical office assistant technologies	5214
Medical record technologies	5213
Mental health aide programs	5216
Natural science technologies, general	5401
Newspaper communication technologies	5008
Nuclear technologies	5316
Nursing, practical (L.P.N. or L.V.N.)	5209
Nursing R.N. preparation	5208
Occupational therapy technologies	5210
Oceanographic technologies	5406
Ocular care technologies	5212
Office machine repair technologies	5310
Office machine training	5005
Ophthalmic technologies	5212
Optical technologies	5212
Optometric technologies	5212
Personal service technologies	5006
Personnel management technologies	5004
Photogrammetry technologies	5309
Photography technologies	5007
Physical therapy technology	5219
Plastics technologies	5305
Plumbing technologies	5317
Police technologies	5505
Printing technologies	5009
Programmer technologies	5103
Psychiatric technologies	5216
Public administration and management technologies	5508
Public health inspection technologies	5408
Public service technologies, general	5501
Public utility technologies	5011
Purchasing technologies	5004
Radio broadcasting technologies	5008
Radio repair technologies	5310
Radiologic technologies	5207
Real estate technologies	5004
Recreation technologies	5506
Religion related occupations	5502
Rest home management technology	5218
Restaurant management technologies	5010
Sales technologies	5004
Sanitation technologies	5408
Secretarial technologies	5005
Sheet metal technologies	5317
Social work related technologies	5506
Stewardess preparation	5006
Surgical technologies	5211
Surveying technologies	5309
Teacher aide preparation	5503
Television broadcasting technologies	5008
Television repair technologies	5310
Textile technologies	5313
Tool design technologies	5303
Transportation technologies	5011
Welding technologies	5308
Wildlife technologies	5403
X-ray technologies	5207

APPENDIX D: PERSONNEL ACTIVITY SURVEY FORMS AND INSTRUCTIONS

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DEPARTMENTAL CHAIRMAN'S REPORT OF FACULTY ACTIVITIES

NAME____________________ I.D. OR SOCIAL SECURITY NO.____________________

FISCAL REFERENCE BLOCK

ORG. UNIT	LENGTH OF CONTRACT	FTE (TERM)	BUDGETARY ACCOUNT NAME	BUDGETARY ACCOUNT NUMBER	SALARY DOLLARS	PCS CODE	REF. CODE

1A. INSTRUCTIONAL ACTIVITIES - CREDIT AND NON-CREDIT COURSES

PCS Do Not Write In This Column (a)	Organizational Unit (b)	Course and Section Number (c)	Section Enrollment (d)	Code R = Remedial E = Extension C = Community Ed. (e)	Credit Hours (f)	Formal Contact Hours (g)	Percentage of Workload (h)	Reference Code (i)

1B. INSTRUCTIONAL ACTIVITIES NOT RELATED TO COURSES

Activity Description	% of Workload	Reference Code

2. ORGANIZED RESEARCH ACTIVITIES

Activity Description	% of Workload	Reference Code

3. PUBLIC SERVICE ACTIVITIES

Activity Description	% of Workload	Reference Code

4. ADMINISTRATIVE AND COMMITTEE ACTIVITIES

Activity Description	% of Workload	Reference Code

5. STUDENT SERVICE ACTIVITIES

Activity Description	% of Workload	Reference Code

INSTRUCTIONS FOR COMPLETING DEPARTMENTAL CHAIRMAN'S REPORT OF FACULTY ACTIVITIES

SECTION 1: INSTRUCTIONAL ACTIVITIES

A. Credit and Noncredit Courses

Performing any duties associated with teaching credit courses and noncredit courses. Includes only those courses taught this term.

Instructions for completing Section 1A, Columns (a) through (i):

(a) Do not complete this column.

(b) Enter the department, college, or other unit designation under which the course is taught.

(c) Enter the number or other designation for the course and section.

(d) Enter the number of students enrolled.

(e) Code (R) if course material is remedial (below college level), or (E) if it is extension (principally directed toward nonmatriculated students), or (C) if it is Community Education (principally directed toward members of the community.)

(f) Enter the number of student credit hours given for course. In the case of variable credit, give the credit-hour range. Enter a zero (0) for noncredit courses.

(g) Enter the scheduled contact hours per week.

(h) Enter the percentage of workload attributable to this course.

(i) Enter appropriate fiscal reference code to indicate source of funds that support this activity.

B. Other Instructional Activities

Performing any teaching duties not associated with specific courses listed in Section A. For example: Thesis Committee participation, thesis advising, course and curriculum development, giving lectures or seminars for the institution or other classes, academic advising (not to be confused with counseling which is included in Section 5) and departmental research when defined as a collection of faculty activities related to instruction. Research activities that are separately budgeted should be included in Section 2.

SECTION 2: ORGANIZED RESEARCH ACTIVITIES

Performing any research-related duties that have been created as a result of a contract, grant, or specific allocation of institutional resources to conduct a study or investigation of specific scope. Excludes departmental research, unless it is narrowly defined as an ongoing scholarly research activity. Those research activities that are part of a formal research organization created to manage a number of related research efforts should be separately identified.

SECTION 3: PUBLIC SERVICE ACTIVITIES

Performing any duties related to making available to the public various resources and unique capabilities that exist within the institution. Included would be duties concerning conferences, reference bureaus, advisory services, urban affairs, consultation, radio and television, and similar activities. To be included in this category, the primary intent must be to provide services that are beneficial to those groups and individuals outside the institution. Any noncredit scheduled classes for community members should be included in Section 1 and should not be recorded in this section. Activities that relate to agricultural extension, patient services, or sponsored training programs, such as Peace Corps, should be separately identified in this section.

SECTION 4: ADMINISTRATIVE AND COMMITTEE ACTIVITIES

Performing any duties related to the administration of an academic department or other organizational unit, for example, the school, the college, the student services office. Also includes any committee work done by faculty which relates to any academic department or other organizational unit.

SECTION 5: STUDENT SERVICES ACTIVITIES

Specify separately any duties related to the following activities:

(a) Activities related to student associations, student newspapers, special conferences, recreation.

(b) Intercollegiate Athletics.

(c) Personal counseling, disciplinary counseling, and career guidance. Academic counseling should be included in Section 1B and not in this section.

FACULTY ACTIVITY AND OUTCOME SURVEY

NAME ______________________________ I.D. OR SOCIAL SECURITY NO. ______________________________

FOR INSTITUTIONAL USE

ADDITIONAL INFORMATION BLOCK									FISCAL REFERENCE BLOCK								
INSTITUTION	TERM	TENURE	YEARS AT INSTITUTION	YEARS IN RANK	PRINCIPAL DEPARTMENT	ADMINISTRATION RANK	FACULTY RANK	LENGTH OF APPOINTMENT	REF. COL.	FTE	ACCOUNT TITLE	DEPARTMENT/ UNIT	PCS CODE	ACCOUNT NUMBER	SALARY DOLLARS		

INITIAL ESTIMATE OF YOUR OVERALL AVERAGE HOURS PER WEEK ☐

SECTION A: TEACHING ACTIVITIES											PERCENTAGE DISTRIBUTION TO INSTITUTIONAL OUTCOMES				
A. 1 SCHEDULED TEACHING										(j) AVERAGE HOURS PER WEEK	(k)	(l)	(m)	(n)	(o)
			(d) SECTION				(g) + (h) + (i) = (j)								
(a) HEGIS Do not write in this column	(b) DEPT. UNIT	(c) COURSE & SECTION #	Enroll-ment	Code R if Remedial E if Extension	(e) CREDIT HOURS	(f) METHOD OF INSTRUC-TION	(g) FORMAL CONTACT HOURS	(h) OTHER CONTACT HOURS	(i) PREPAR-ATION & ADMIN-ISTRATION		STUDENT GROWTH AND DEVELOPMENT %	DEVELOPMENT OF NEW KNOWLEDGE AND ART FORMS %	COMMUNITY SERVICE AND DEVELOPMENT %	INSEPARABLE COM-BINATION OF (k) + (l) + (m) %	FISCAL REFERENCE DO NOT WRITE IN THIS COLUMN
					SUBTOTAL										

Tear Here

	(p) LEVEL	(q) ACTIVITY DESCRIPTION						
A.2 UNSCHEDULED TEACHING								
A.3 ACADEMIC PROGRAM ADVISING								
A.4 COURSE AND CURRICULUM RES. & DEVELOP.								
		SUBTOTAL						

	ACTIVITY	(g) ACTIVITY DESCRIPTION	(j) AVERAGE HOURS PER WEEK	PERCENTAGE DISTRIBUTION TO INSTITUTIONAL OUTCOMES				
				(k) STUDENT GROWTH AND DEVELOPMENT %	(l) DEVELOPMENT OF NEW KNOWLEDGE AND ART FORMS %	(m) COMMUNITY SERVICE AND DEVELOPMENT %	(n) INSEPARABLE COMBINATION OF (l), (k) + (l) %	(o) FISCAL REFERENCE DO NOT WRITE IN THIS COLUMN
SECTION B: RESEARCH, SCHOLARSHIP & CREATIVE WORK ACTIVITIES	B.1 SPECIFIC PROJECTS							
	B.2 GENERAL SCHOLARSHIP AND PROFESSIONAL DEVELOPMENT							
		SUBTOTAL						

SECTION C: INTERNAL SERVICE ACTIVITIES	C.1 STUDENT-ORIENTED SERVICE								
		CODE LEVEL							
	C.2 ADMINISTRATIVE DUTIES								
	C.3 COMMITTEE PARTICIPATION								
			SUBTOTAL						

Tear Here

SECTION D: PUBLIC SERVICE ACTIVITIES	GENERAL PROFESSIONAL SERVICE ADVICE DIRECTED OUTSIDE THE INSTITUTION							
		SUBTOTAL						

AVERAGE HRS WEEK	

GENERAL INSTRUCTIONS

This survey asks you to estimate the average hours per week that you spend this term engaged in different types of activity. It then asks you to estimate the percentage contribution of these hours to the outcomes of the institution. Please read the acivity definitions and examples for each activity as you complete the survey.

Before completing the form, you might find it helpful to make an initial estimate of the average number of hours you spend each week in this term engaged in professional activities. Making this estimate might help you divide your time into the remaining sections of the survey instrument.

SECTION A: TEACHING ACTIVITIES

A.1 Scheduled Teaching: All activities related to courses (degree and nondegree, credit and noncredit, day or evening) given in the current term. These activities would include:

- Meeting informally with course participants
- Supervising these courses
- Meeting scheduled classes
- Grading
- Reading student papers
- Supervising teaching assistants
- Tutoring
- Supervising independent study
- Giving remedial help to course participants
- Supervising laboratories
- Evaluating students
- Contacting guest lecturers
- Preparing lectures
- Preparing media

Instructions for Columns (a) through (j)

(a) Do not complete this column. This column will be used to assign a discipline code to each course.

(b) Enter the department, college, or other unit designation under which the course is taught.

(c) Enter the number or other designation for the course and section.

(d) Enter the number of students enrolled and code (R) if course material is remedial (below college level) or (E) if it is extension (principally directed toward nonmatriculated students).

(e) Enter the number of student credit hours given for course. In the case of variable credit, give the credit hour range.

(f) Enter the method of instruction as coded below. When multiple methods are used, list them in order of importance.

(g) Enter the scheduled contact hours/week.

(h) Enter the average hours/week of unscheduled contact with students in course.

(i) Enter the average hours/week spent in preparing and arranging the activities of the current course.

(j) Enter the total average hours/week [sum of columns (g), (h), and (i) in Section A.1].

Method of Instruction Column (f)

Code	Method	Definition
A	Lecture	Formal presentation—primarily one-way communication
B	Laboratory	Instructing, preparing, and supervising student investigations
C	Recitation/Discussion	Two-way communication of course materials
D	Seminar	Students carry the major responsibility for preparation
E	Independent Study	Students work independently with only minimal faculty direction
F	Tutorial	Students work one-to-one with the instructor
G	Programmed Instruction	Course contents presented through programed materials

A.2 Unscheduled Teaching: Teaching not associated with the specific courses listed in A.1. For example:

- Thesis committee participation
- Thesis advising
- Discussions with colleagues about teaching
- Guest lecturing in another faculty member's course
- Giving seminars within the institution

A.3 Academic Program Advising: Giving advice to students concerning course scheduling and academic programs. Not to be confused with counseling that is included in C.1.

A.4 Course and Curriculum Research and Development: Developing and preparing for future courses. For example:

- Preparing course outlines
- Developing book lists
- Evaluating courses
- Devising new instructional materials
- Revising existing materials
- Planning summer or intersession programs
- Developing department curriculum requirements
- Evaluating teaching effectiveness and planning changes

Level Codes Column (p)

Code	Description	Code	Description
A	Preparatory	E	Upper division and graduate
B	Lower division	F	Graduate
C	Upper division	G	Professional
D	Undergraduate	H	Other

SECTION B: RESEARCH, SCHOLARSHIP, AND CREATE WORK ACTIVITIES

B.1 Specific Projects: Research, scholarship, and creative work activity related to a specific project. For example:

- Departmental research
- Sponsored research
- Performing your professional skill
- Your dissertation research
- Revewing a colleague's research work
- Writing or developing research proposals
- Administering research grants
- Giving recitals
- Maintaining an artistic skill
- Writing articles
- Writing books
- Writing reviews
- Creating new art forms
- Exhibitions

B.2 General Scholarship and Professional Development: All research, scholarship, and creative work activities related to keeping current in a professional field. For example:

- Reading articles and books related to your profession
- Officer in a professional society
- Attending professional meetings
- Attending seminars
- Research-related discussion with colleagues
- Editor of a journal

SECTION C: INTERNAL SERVICE ACTIVITIES

This section includes activities related to general contact with students, to professional responsibilities within other organizational units within the institution, and to fulfilling institutonal requests.

C.1 Student-oriented Service: For example:

- Personal, career, and financial counseling
- Preparing recommendations
- Participation in social interaction
- Recruiting students
- Sponsoring student organizations
- Meeting with parents
- Attending student recitals
- Coaching intramural or intercollegiate athletics
- Directing the band, orchestra, student plays, debate team, or any other student group

C.2 Administrative Duties: For example:

- Performing the duties of a department chairman, dean, vice-president or any other administrative position
- Administering personnel policies
- Faculty service reports and questionnaires
- Keeping records
- Preparing minutes
- Writing and answering memoranda
- Assigning faculty course loads
- Preparing budgets
- Gathering data
- Helping during registration
- Interviewing candidates for faculty positions
- Escorting visitors
- Recruiting faculty
- Advising on library purchases
- Recruiting students

C.3 Committee Participation. For example:

- Admission committees
- Departmental meetings
- Faculty senate
- Planning committees
- Budget committees

Code the level of these activities as described at the foot of the form.

SECTION D: PUBLIC SERVICE ACTIVITIES

This section includes activities that are directed outside the institution [except for those associated with community education (extension instruction), which should be included in A.1.].

General Professional Services/Advice Directed Outside the Institution: Activities meant to benefit the community outside the institution. For example:

- Consulting
- Advising
- Professionally performing as in plays, orchestras
- Community training grants
- Patient care
- Lectures or seminars for the public
- Agricultural extension
- Urban extension

ADMINISTRATIVE/SUPPORT ACTIVITY SURVEY

Instruction: Enter the appropriate hours per week or percentage of time spent on each activity group listed on this form. Before completing the form, be sure to read the detailed activities description which appear on the following pages.

Name ______________________________

FISCAL REFERENCE BLOCK

ORG. UNIT	LENGTH OF CONTRACT	FTE (TERM)	BUDGETARY ACCOUNT NAME	BUDGETARY ACCOUNT NUMBER	SALARY DOLLARS	PCS CODE	REF. CODE

1A. INSTRUCTIONAL ACTIVITIES - CREDIT AND NON-CREDIT COURSES

PCS Do Not Write In This Column (a)	Organizational Unit (b)	Course and Section Number (c)	Section Enrollment (d)	Code R = Remedial E = Extension C = Community Ed. (e)	Credit Hours (f)	Formal Contact Hours (g)	Other Contact Hours (h)	Preparation & Administration (i)	Hours Per Week (g + h + i) (j)	Percentage (k)	Code (l)

1B. INSTRUCTIONAL ACTIVITIES NOT RELATED TO COURSES IN ITEM 1A

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE

2. ORGANIZED RESEARCH

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
2.1 Institutes and Research Centers		
2.2 Individual and Project Research		

3. PUBLIC SERVICE

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
3.1 Community Education		
3.2 Community Service		
3.3 Cooperative Education		
3.4 Patient Services		
3.5 Training Grants		

Social Security No. ______________________________

4. ACADEMIC SUPPORT

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
4.1 Libraries		
4.2 Museums and Galleries		
4.3 Audio/Visual Services		
4.4 Computing Support		
4.5 Ancillary Support		
4.6 Academic Administration/ Personnel Development		
4.7 Course and Curriculum Development		

5. STUDENT SERVICES

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
5.1.7100 Social & Cultural Development		
5.1.7200 Intercollegiate Athletics		
5.2 Supplementary Education		
5.3 Counseling and Career Guidance		
5.4 Financial Aid		
5.5 Student Support		
5.6 Student Admissions and Records		

6. INSTITUTIONAL SUPPORT

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
6.1 Executive Management		
6.2 Fiscal Operations		
6.3 General Administrative Service		
6.4 Logistical Service		
6.5 Physical Plant Operation		
6.6 Faculty and Staff Services		
6.7 Community Relations		

7. HOSPITALS

ACTIVITY DESCRIPTION	HOURS PER WEEK OR %	CODE
9.0 Hospitals		

INSTRUCTIONS FOR COMPLETING ADMINISTRATIVE/SUPPORT SURVEY

SECTION 1: INSTRUCTIONAL ACTIVITIES

A. Credit and Noncredit Courses

Performing any duties associated with teaching credit courses and noncredit courses. Includes only those courses taught this term.

Instructions for completing Section 1A, Columns (a) through (l)

(a) This column for PCS code. To be completed by Central Office.

(b) Enter the department, college, or other unit designation under which the course is taught.

(c) Enter the number or other designation for the course and section.

(d) Enter the number of students enrolled.

(e) Code (R) if course material is remedial (below college level), or (E) if it is extension (principally directed toward nonmatriculated students), or (C) if it is Community Education (principally directed toward members of the community.

(f) Enter the number of student credit hours given for course. In the case of variable credit, give the credit hour range. Enter a zero (0) for noncredit courses.

(g) Enter the scheduled contact hours per week.

(h) Enter the average hours per week of unscheduled contact with students in course.

(i) Enter the average hours per week spent in preparing and arranging the activities of the current course.

(j) Enter the total average hours per week [sum of Columns (e), (f), and (g)].

(k) Enter the percentage of total workload that instructional activity represents.

(l) Enter the appropriate Fiscal Reference Code from Fiscal Reference Block.

B. Other Instructional Activities

Performing any teaching duties not associated with specific courses listed in Section A. For example: Thesis committee participation, thesis advising, giving lectures or seminars for the institution or other classes, academic advising (not to be confused with counseling which is included in Section 5), and departmental research when defined as a collection of faculty activities related to instruction.

SECTION 2: ORGANIZED RESEARCH

2.1 Institutes and Research Centers

Performing any research-related duties that are part of a formal research organization created to manage a number of related research efforts.

2.2 Individual or Project Research

Performing any research-related duties that have been created as a result of a contract, grant, or specific allocation of institutional resources to conduct a study or investigation of specific scope. Excludes departmental research, unless it is narrowly defined as an ongoing scholarly research activity.

SECTION 3: PUBLIC SERVICE

3.1 Community Education

Performing any duties other than those already included under teaching in Section Al, related to noncredit instructional services to members of the community other than matriculated students.

3.2 Community Service

Performing any duties related to making available to the public various resources and unique capabilities that exist within the institution. Included would be duties concerning conferences, reference bureaus, advisory services, urban affairs, consultation, radio and television, and similar activities. To be included in this category, the primary intent must be to provide services that are beneficial to those groups and individuals outside the institution.

3.3 Cooperative Extension Service

Performing duties that are related to a program where control is shared by the institution and one or more governmental units. Included would be activities in extension such as Agriculture, Urban Affairs, International, etc.

3.4 Patient Services

Performing any duties which consist of services that benefit patients either directly through faculty physicians or indirectly through consulting, laboratory, or other services rendered under the auspices of a hospital or clinic.

3.5 Training Grants

Performing any duties related to special training grants that are typically for special purposes and administered as separate projects, e.g., Peace Corps training and law enforcement training.

SECTION 4: ACADEMIC SUPPORT

4.1 Libraries

Performing any duties related to any library services at the institution.

4.2 Museums and Galleries

Performing any duties related to the collection, preservation, and exhibition of historical materials, art displays, scientific displays, etc. Libraries are excluded.

4.3 Audio/Visual Services

Performing any duties related to audio and/or visual materials or media services to support the programs of instruction, research, and public service.

4.4 Computing Support

Performing any duties as a professional staff member that have been established to provide computing support for the instruction, research, and public service programs. Excludes those working in administrative data processing.

4.5 Ancillary Support

Performing any duties as a professional staff member for programs which provide support services to the instruction, research, and public service programs. Included would be work in demonstration schools, machine shops, glass blowing shops.

4.6 Academic Administration and Personnel Development

Performing any management duties as a professional staff member in any of the programs of instruction, research, and public service. Includes duties as deans, department chairmen, and their assistants and associates.

4.7 Course and Curriculum Development

Performing any duties as a professional staff member in activities established for the purpose of new course and curriculum development. May include departmental curriculum committees, explicit faculty assignments for course development, and the development of pre-recorded course materials.

SECTION 5: STUDENT SERVICES

5.1.7100 Student Development

Performing any duties related to the social and cultural development of students; includes activities in intramural athletics, student associations, student newspapers, special conferences, student clubs, recreation, etc.

5.1.7200 Intercollegiate Athletics

Performing any duties related to intercollegiate athletics.

5.2 Supplementary Educational Service

Performing any duties related to providing matriculated students with supplemental instruction outside of the normal academic program, generally remedial education service. Includes only those activities that are not included in Section 1A, Instruction.

5.3 Counseling and Career Guidance

Performing any duties related to personal guidance, disciplinary counseling, career guidance for the student body. This category also includes Placement Service activities provided to help students obtain jobs upon leaving the institution. Excludes those activities related to helping matriculated students find part-time employment while they are still in school.

5.4 Financial Aid

Performing any duties related to providing financial aid services to students. Included are work/study and student employment programs, administering and counseling concerning scholarships and fellowships, and related activities.

5.5 Student Support

Performing any duties related to providing convenience services to the study body or services to special student groups. Includes student housing, health, food, concessions, veterans, foreign students, disadvantaged students, and physically handicapped students.

5.6 Student Admissions and Records

Performing duties related to providing admission and registration services to students. Includes the maintenance of the permanent academic records of the students.

SECTION 6: INSTITUTIONAL SUPPORT PROGRAMS

6.1 Executive Management

Performing any duties associated with the management and long-range planning of the entire institution. Includes activities in central services such as legal services, executive direction, institutional research, long-range planning, etc.

6.2 Fiscal Operations

Performing any duties associated with any central operations related to fiscal control and investments.

6.3 General Administrative Services

Performing any duties that provide central administrative services to the other institutional support programs in an institution. Includes activities in administrative data processing, staff personnel, etc.

6.4 Logistical Services

Performing any duties that provide procurement services, supply of provisions, maintenance of provisions, movement of support materials for campus operations, and environmental health and safety functions.

6.5 Physical Plant Operations

Performing any duties related to the campus grounds and facilities. Includes maintenance of existing grounds, creating new facilities, or modifying existing facilities.

6.6 Faculty and Staff Services

Performing any duties related to providing support services for faculty and staff. Includes faculty and staff food services, housing, health services, etc.

6.7 Community Relations

Performing any duties related to maintaining relationships with the general community, the institution's alumni or other constituents, or to development or fund raising activities. Excluded are activities primarily connected with public service.

SECTION 7: HOSPITALS

9.0 Hospitals

Performing any duties associated with the operation of the hospitals including nursing services, other professional services, general services, administrative services, and fiscal services.

APPENDIX E: CAPITAL COST STUDY

UNIVERSITY OF WASHINGTON

COST FINDING PRINCIPLES PROJECT

FINAL REPORT

CAPITAL COST STUDY

John H. Powel, Jr.

Coordinator of Cost Finding Principles

September 15, 1972

Office of Planning and Analytical Studies
Office of the Vice-President for Planning and Budgeting

University of Washington
Seattle, Washington

UNIVERSITY OF WASHINGTON
COST FINDING PRINCIPLES PROJECT

CAPITAL COST STUDY

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*Sections 1-7 are included as a portion of this Appendix. Section 8 is available as a separate paper entitled Information Loss from Aggregation in Capital Cost Distributions. The Appendices (I-IX) have not been reproduced as a part of this document.

UNIVERSITY OF WASHINGTON
CAPITAL COST STUDY

Introduction

The objective of the Cost Finding Principles project is to develop and implement procedures for determining the full costs of instructional, research, and public service programs on a department-by-department basis, and ultimately on a per-unit basis for outputs. In conducting any cost study, the number and extent of possible refinements over current procedures is virtually unlimited; however, it is important to maintain a balance between the cost of doing these and the information value gained from using them. The intent of the CFP study, in this light, is not to develop refinements *ad infinitum* without regard to their usefulness, but first to select refinements that are conceptually valid; second, to investigate the differences in results when these refinements are implemented as alternative costing procedures; and third, to identify the most practical and least costly procedures that lead to results judged to be reasonable by members of the project task force and other members of the higher education community involved in reviewing the results of the study.

One area of costing that requires special attention is capital: land, plant, and equipment. While land is an asset with alternative uses, the conceptual and practical difficulties in measuring its value--and hence its real cost to users--are so complex that the task force has determined to concentrate on only the depreciable assets of universities, i.e., plant and equipment. The special study of physical plant costs was assigned to the University of Washington; the area of equipment is dealt with in a paper from another institution.

Specifically, this study had the objectives of determining efficient procedures (1) for estimating with reasonable accuracy full current capital use costs of University-owned buildings, and (2) for distributing these costs to users as part of a comprehensive full cost study.

These alternatves will be used during the next phase of the Cost Finding Principles project in order to determine what difference, if any, they make in the final results of full-cost studies. In particular, we wish to determine (1) what magnitude of difference the inclusion of full capital costs, regardless of funding source, makes in costs allocated to primary programs, and (2) whether the use of any of the alternatives produces a significant pattern of differences in the costs allocated to each of the primary programs. As in all the testing during the next phase of the project, when outcomes do not significantly differ the simplest procedure be used. However, where significant differences do occur, the task force will make appropriate indications for users of CFP tested procedures and attempt to identify the relationship of different procedures to particular study objectives.

Summary of Findings

The current cost of any asset is defined herein as current depreciation of the asset plus interest foregone on its principal value. Determination of the current cost of University-owned space by user therefore involved three tasks: estimating current depreciation, estimating current asset values, and distributing costs to users. This section summarizes major issues confronted, methodological approaches taken, and findings made in each of these tasks. Methodological details and a broader discussion of some issues occupy the remainder of the text.

1. Depreciation Cost Estimation

For purposes of estimating current depreciation costs, it was assumed that university renovations expenditures are the result of a policy of maintaining the original service value of buildings and their additions. For purposes of this study, renovations were defined as those investments made primarily to restore or repair facilities without making significant changes in function and without actually increasing the size or capacity of the facility. Additions were defined as investments made primarily to enlarge or expand existing facilities and/or significantly alter their function. This assumption allowed use of renovation expenditures to approximate depreciation of the value of any given building due both to physical deterioration and obsolesence.

In order to arrive at estimates of current depreciation on a building-by-building basis which would not result in biases, historical renovations records of buildings at the University of Washington were used to estimate patterns of renovation on an annualized basis, and also to determine the differential effects, if any, that age, construction, and space types have on these patterns. The most efficient estimate of current depreciation was identified as that procedure which produced statistically valid estimates of renovations costs and is generally least costly for most institutions to obtain. Six alternatives for estimating current depreciation were tried: 2% of book value, 2% of replacement cost (estimated by the Markel index)*, 2% of replacement cost (estimated using a simplified index created by Boeckh and Associates), 2% of replacement cost (using a Department of Commerce rental rate index)**, average annual renovations, estimated renovations using an aggregate space model, and estimated renovations using a model which differentiates space types of each building. From these alternatives, the least costly technique that still produced acceptable estimates of depreciation costs was identified as 2% of asset book value (original cost plus additions uncorrected for inflation). None of these alternatives was disaggregated by space and construction type, however, and it is possible that appropriate percentages would differ by construction or space type on a disaggregated basis.

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*Sources for cost indexes are given in Section 1, below.

**Strictly speaking, the rental rate index is not completely consistent with the objective of adjusting renovations expenditures for price changes since it includes the effect of changes in land values. However, the rental index was the only one that makes allowance for the fact that cheaper substitutes for materials used in making renovations investments become available over time.

2. Current Asset Value Estimation

Since an objective of this special study was to determine what significant differences result when the *full* costs of depreciable assets are included in costing calculations, the depreciation estimating technique was added to the interest on remaining asset value, i.e., principal value of the asset, to arrive at a full current use cost estimate. To be consistent with the assumed renovation policy, asset values were assumed constant over the peaks of the renovation cycle; original asset value was used as the principal on which to calculate interest charges. However, price levels change over time through inflation, the original value of buildings according to their accounting records, i.e., the book value, may generally understate their value in current prices. To correct for this inflationary effect, three price indexes were used: a complex index authored by the Markel Corporation; a simplified index constructed by E.H. Boeckh and Associates and published in the Department of Commerce publication, Business Statistics; and an index of commercial rental rates from the same publication. The last index, which rises more slowly over time than either of the construction cost indexes, was included to allow for the possibility that the costs of services provided by buildings have risen more slowly than construction costs because materials and labor saving devices may become available and reduce the relative cost of replacing a given quality of service. These indexes were used together with the unadjusted book value of the assets as four alternative estimates of current asset value.

Using these alternative estimates, interest was calculated and combined with depreciation estimates to arrive at corresponding estimates of full current capital use costs per building. These estimates then were compared with estimates of current rental value (corrected for land value, property taxes, and maintenance costs), in order to determine which building valuation technique produced current cost estimates closest to the rental value estimates. In this comparison, the estimates of current costs by building based on either unadjusted book values, or book values adjusted by the rental cost index, came the closest to the rental value estimates. This result implies that inflation in asset services values over time has occured at a slower rate than inflation of construction costs and suggests that building *services* can be replaced in most cases more cheaply than the cost of reproducing the original structure. It should be cautioned, however, that where the service value of a building depends crucially on its architecture and structure, for example, where campus buildings are part of the cultural heritage of a community, there may be no cheap substitutes for the original book value of assets and additions or book value adjusted by a rental index provide reasonable estimates of current asset values.*

3. Distribution of Costs to Users

At the outset of the project, the Cost Finding Principles Task Force determined that cost distribution procedures would be guided by full costing principles. That is, all current space costs would be allocated to current users or potential users. The effect of this decision is that idle space costs, if any, are averaged into the costs of all space and distributed accordingly over the minimum group of users with which they are associated.

Four levels of sophistication were identified for distributing capital costs to users. First, the current charges for all buildings can be aggregated and distributed to all users on the basis of assignable square feet of space used or held available for use. This alternative is by far the easiest to perform, but this ease comes at the cost of a significant information loss. Specifically, averaging the costs of all buildings over assignable square feet conceals the fact that some users may use particularly expensive space while others may use relatively cheap space. A second alternative aggregated overall buildings but distributed costs on the basis of *weighted* assignable square feet, where the weights reflect the relative costs associated with different room use types. A third alternative is to distribute costs on a building-by-building basis. This alternative is yet more costly to perform, but preserves the differences in costs among buildings. The final alternative is to distribute costs on the basis of *weighted* square feet for *each* building. This alternative is the most costly to perform and preserves the maximum in cost differences. For example, we have found that depreciation and construction costs vary significantly by room type. Consequently, users of, say, lab and office space in a given building would, under this alternative, be assigned costs on a basis of which weighted lab costs more than office costs per assignable square feet.

Each level of aggregation results in some loss of information. It is impossible to predict, however, the extent to which information is lost and thus to assess the relative merits of each alternative. It is recommended, therefore, that the pilot testing phase of this project include a test of the differences which result from allocating capital costs using each of these alternatives. Such a test would indicate (1) the extent to which aggregation imposes information costs in terms of variations in allocated capital costs and (2) whether the added effort required by disaggregation was justified by the information gained concerning the distribution of costs across programs and within programs across departments.

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*It could be argued, for example, that the architectural environment of a college or university is an integral part of the total experience, both in the sense of the value to students and in the sense that a change in this environment may reduce its attractiveness to faculty, possibly raising operating costs.

Detail of Study

1. Data Collection

Data requirements for the Capital Cost Study were extensive. Data were required for owned buildings on original costs of construction or purchase, additions, construction types and an inventory of space by room type was required, along with annual lease charges for space rented to the University, and information on the value of services included in these charges.

It was possible to obtain a usable sample of seventeen leased buildings that met the data requirements described from the administrative and fiscal officer in the Facilities Planning and Construction Office. Buildings were selected on the basis of two criteria: first, that sufficient data be available for them; and second, that they be located near the campus.

Data for owned space was obtained from four sources. The original purchase or construction cost for each building was made available from the minutes of the Board of Regents. The history of capital investment in each building, which included additions and renovations, was provided by the General Accounting Office. This information was in the form of total capital investment, and at least two weeks were required by the planning aide in the Office of Planning Studies to break the capital investment records down into additions and renovations. This was done by subtracting the known contract amounts for additions in given time periods from the total investment for the time period in order to arrive at a renovations cost series for each building.* Finally, a complete inventory of square feet by space type for each building from the Office of Planning Studies was condensed and put in machine-readable form for purposes of the study.

In classifying room space, a standard taxonomy of room type categories consistent with those recommended in Nicholas A. Osso's Higher Education Facilities Inventory and Classification Procedures Manual, published by the U.S. Office of Education in 1968, was used. These standard space type codes have been in use in Washington State since 1963, when they were implemented in compliance with Title I of the Higher Education Facilities Act of that year. For purposes of the Capital Cost Study, space type data were broken down only to the two-digit level, yielding ten categories. These categories were:

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*As mentioned above, renovations were defined, for purposes of this study, as investments to restore facilities without making significant additions to capacity or alterations in function. Additions were defined as investments to add significantly to and/or alter a facility's functions. Clearly these definitions are not precise and some arbitrary judgements had to be made in applying them.

Type 0 - Utility Space (stairwells, halls, lavatory facilities, etc.)
Type 1 - Classroom Space
Type 2 - Laboratory Space
Type 3 - Office Space
Type 4 - Study Facilities
Type 5 - Special Use Facilities (audio, clinical, etc.)
Type 6 - General Use Facilities (assembly, exhibition, merchandising, recreation, etc.)
Type 7 - Supporting Facilities
Type 8 - Medical Care Facilities
Type 9 - Residential Facilities

A complete listing of square feet by the ten space types above for each building is contained in Appendix I.

Also from the Office of Planning Studies, information was obtained on the construction types of all buildings. These are steel/stone, wood, and combination.

2. Adjustments to Raw Data: Cost Indexes

All data on original construction costs or purchase prices, additions, and renovations were in "current" (original) prices, so it was necessary to adjust dollar figures to 1971 dollars. Three adjustments were made, and the resulting cost figures are designated Replacement Cost (1), Replacement Cost (2), and Replacement Cost (3), respectively. The first two of these are the result of adjustments made to the data using separate construction cost indexes in order to determine the difference in results from using two different price indexes. The first index is the "Basic Building Construction Cost Conversion Table, January Issue, 1971, and Appraisal Chart," provided to the Office of Physical Plant by the Markel Appraisal Chart Company of Cincinnati, Ohio. The Markel Index provides different cost conversion factors for each of the three construction types described above. The adjustment was also made using a simplified index which does not distinguish between construction types. This index, which is constructed by E.H. Boeckh and Associates, was compiled from the U.S. Department of Commerce, Office of Business Economics Publication Business Statistics, (Washington, D.C.: U.S. GPO 1969 and 1942 Editions; factors for the years 1890 to 1913 were generated by extrapolation). Replacement Cost (3) is the result of the third adjustment made using the rental rate index from the latter source to account for the fact that the prices of *services* generated by buildings may have changed at a rate different from the prices of the inputs used in construction.

The age, sum of original investments and additions in current prices, and the three adjustments to 1971 dollars for each building in the owned space sample are shown in Appendix II. Table I on the following page presents summary statistics describing the sample of owned buildings. It is evident from these statistics that the sample is skewed towards the relatively lower cost and younger buildings since the means for these statistics are much less than two standard deviations. It is also apparent that the sample is far from uniform in the distribution of square feet by space type. While variations are necessary to allow statistical analysis of the type used here, variations as wide as those found in the owned space sample and the apparently skewed nature of the distributions suggest that extremely precise results should not be expected. We therefore advise against interpreting any specific cost estimates in this report as precise estimates of actual costs. However, these considerations do not harm the usefulness of these data for purposes of making *comparisons* of estimating procedures.

UNIVERSITY OF WASHINGTON CAPITAL COST STUDY

TABLE I

Owned Space Sample Statistics

	Statistic Description	Mean	Standard Deviation
1.	Construction or acquisition year	1949	
2.	Building age	23 years	20
3.	Sum of historical costs	$ 804,333	$1,844,527
4.	Replacement cost (1)	$1,696,365	$3,788,298
5.	Replacement cost (2)	$1,441,498	$3,214,697
6.	Replacement cost (3)	$1,045,287	$2,443,485
7.	Renovations in 1971 prices	$ 257,396	$ 714,822
8.	Average annual renovations	$ 13,718	$ 46,052
9.	Total square feet per building	45,466 sq. ft.	

	Statistics Description	Mean	Range
10.	Utility space (per building containing utility space)	18,577 sq. ft.	12 - 362,714
11.	Classroom space (per building containing classroom space)	6,172 sq. ft.	355 - 27,822
12.	Laboratory space (per building containing laboratory space)	11,490 sq. ft.	133 - 191,773
13.	Office space (per building containing office space)	7,003 sq. ft.	55 - 87,981
14.	Study facilities (per building containing study facilities)	6,673 sq. ft.	29 - 159,676
15.	Special use (per building containing special use)	16,091 sq. ft.	238 - 121,487
16.	General use (per building containing general use)	4,824 sq. ft.	120 - 103,389
17.	Supporting facilities (per building containing support facilities)	8,112 sq. ft.	320 - 63,827
18.	Medical care (per building containing medical care)	32,940 sq. ft.	1,304 - 155,271
19.	Residential (per building containing residential)	79,383 sq. ft.	8,754 - 200,667
20.	Wood buildings, percent	34.6%	
21.	Combination buildings, percent	13.5%	
22.	Steel and concrete buildings, percent	51.9%	
23.	Temporary buildings, percent	47.1%	
24.	Permanent buildings in need of renovation, percent	3.4%	
25.	Permanent buildings, percent	49.5%	

3. Current Depreciation Cost Estimates

Capital consumption, or depreciation, in the economic sense of the term means a change in the value of an asset due either to physical wear or obsolesence. As used herein, the cost of an asset in any time period is defined as consisting of the interest foregone on the net resale value of the asset plus the value of the asset which is actually consumed during the time period. According to Winslow, ". . .depreciation is the dollar value of the loss in productivity associated with the use and aging of the capital stock . . . (which) . . .may be categorized as technical obsolesence, psychological obsolesence, or functional obsolesence." (Frederic D. Winslow, The Capital Costs of a University, University of California, 1971, p. 28.) The economic concept of depreciation must be distinguished from depreciation techniques as they are currently practiced. According to Powel and Lamson, "In the accounting sense of the term, depreciation is an assigned reduction in the book value of an asset . . .for distributing the acquisition cost of the asset over several time periods. The accounting concept is one of extreme importance when an institution is subject to the corporate income tax. However, for the purposes of estimating the true costs of activities in institutions of higher education, it is much less appropriate." (J. Powel, R. Lamson, Elements Related to the Determination of Costs and Benefits of Graduate Education, Council of Graduate Schools, 1972, p. 135.) One of the major tasks of the capital cost special study, therefore, was to develop techniques for estimating current depreciation in the economic sense.

For purposes of estimating current depreciation costs, we followed Winslow in making the following crucial assumption: University renovation expenditures are the result of a policy of maintaining the original service value of buildings and their additions at a constant level.[1] The consequence of this assumption is that renovations expenditures may be used to approximate the depreciation of buildings due both to physical deterioration ond obsolesence.

The Cost Finding Principles project is aimed at developing procedures which would allow determination of costs on a department-by-department basis. This rules out using current period renovations as a measure of current depreciation. In the first place, there is typically a time lag between the realization that physical deterioration or obsolesence has taken place and the renovation expense. It is common to wait for a certain backlog of renovations to build up before undertaking the job of reinvesting in the building. Consequently during any costing time period, while depreciation may have taken place for all buildings, only a few buildings will have undergone actual renovations. For the buildings which *are* renovated, furthermore, because of the backlog affect, the renovations expense will generally overstate the actual depreciation which took place during the current period. In other words, use of current actual renovations in a full cost study of the sort planned for the Cost Finding Principles project could result in significant understatement of costs in others. In order to arrive at estimates of current depreciation on a building-by-building basis that would not result in such biases, historical renovations records of buildings at the University of Washington were used to estimate patterns of renovation on an annualized basis and also to determine the differential effects, if any, that age, construction, and space have on these patterns.

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[1] Winslow, page 28: "This typical problem of matching an unknown productivity loss to a dollar value figure is greatly simplified by assuming that the University attempts to maintain the quality of its capital stock at the same level from year to year . . . Hence, the sum of all funds invested in the capital stock subsequent to initial construction, except explicit capital improvement or ordinary maintenance, would approximate the depreciation of the university's capital stock if the university were unable to implement such a policy."

Under the assumption that the pattern of total renovations over the life of a building could be used as an approximation for the pattern of total depreciation, the annual effects of age, building size, space types, and construction type of depreciation costs were estimated. A detailed description of the estimation procedures used and the various statistical tests to which they were subjected is contained in Appendix III. Because of their complexity, however, the procedures are not reproduced here, and only the results are summarized.

Two approaches were tried in the estimation procedures, an aggregate approach in which the rate of depreciation was assumed to be the same for all space types, and a disaggregated approach in which the possibility that different space types depreciate at different rates were investigated. The results of these investigations showed that depreciation occurs for all construction types at a roughly constant rate per square foot, regardless of building age.

For the aggregate approach, the results were as follows:

Building Type	Estimated Annual Depreciation Costs per Square Foot
Steel/Stone	$.2704
Wood	.3747
Combination	.1090

It is evident from the results of the aggregate approach that, as one might expect, wooden structures depreciate more rapidly than those constructed of steel and stone or a combination. Curiously, the combination structures have the lowest depreciation rate per square foot. This might be explained by the fact that the combination buildings are among the youngest in the sample, and thus while they may be more susceptible to physical deterioration than the all-steel and -stone buildings, they are less subject to obsolesence. (Mean ages of buildings in the samples were 22.9 years for steel and stone buildings; 27.6 years for wood buildings; and 12.6 years for combination buildings.)

Results of the disaggregated model show that there are very difinite differences in the rate of depreciation of space type. These results are summarized below:

Estimated Annual Depreciation Costs per Square Foot

Space Type	Steel/Stone	Construction Wood	Combination
Utility	$ .17	$ .33	$ -0-
Classroom	.53	.31	.84
Laboratory	.38	1.09	.19
Office	.53	.31	.84
Study Facilities (Library)	.08	.31	.84
Special Use	.08	.31	not in sample
General Use	.17	1.09	-0-
Support	.17	.33	-0-
Medical	1.01	1.09	not in sample
Residential	.37	.31	not in sample

Again, not unexpectedly, the highest renovations costs occur for medical care space, possibly reflecting higher rates of technical obsolescence for such types of space. The next highest estimates occur for classroom and office (and library space in the combination sample), and in these cases it seems likely that the depreciation is physical, due to the intensive use of such space by large numbers of people under conditions of frequent turnover. In the following section, these estimates are compared with estimates arrived at on an aggregate basis by much simpler available techniques. On the basis of these comparisons recommendations are made as to the most efficient aggregate procedures for arriving at estimates reasonably close to those generated above.

4. Comparison of Alternative Depreciation Cost Estimates

The two models described in the preceding section used to estimate current depreciation costs are fairly complicated and in all likelihood require historical data not readily accessible to the institutional analysts. It is worthwhile knowing, therefore, whether there are any available shortcuts for estimating current depreciation. The most common shortcut generally available to all institutions i based on the assumption that institutional buildings, if they were never renovated, would have an average useful life of 50 years. The consequence of this assumption is that buildings depreciate at an average annual rate equal to *two percent of the book value* of the asset. For institutions that do maintain records of renovations expense by building but are not interested in going to any great length in formulating and estimating depreciation costs models, an alternative is average annual renovations for each building, that is, the total renovations expenditures on the building divided by age.* Estimates of current depreciation for the owned buildings in the sample were made using the two depreciation costs models as well as the following alternatives which may be designated as candidates for shortcut estimation techniques: 2% of the book value, 2% of the replacement cost using the Markel Index, 2% of the replacement cost using the Boeckh Index, and the average annual renovations. These estimates for each building are contained in Appendix IV.

Statistical comparisons of all these alternative estimates for the aggregated sample are displayed in Tables IV-A and IV-B on the following pages. Table IV-A contains the simple correlation coefficients of the estimates, and Table IV-B contains a comparison of the means of each estimate with the estimate generated by the disaggregated depreciation costs model, which is assumed to be the most accurate. It is possible to conclude on the basis of these statistical comparisons that the aggregate depreciation costs model, 2% of book value, average annual renovations estimating, and marginally, 2% of Replacement Cost 3, all generate distributions of estimates having means not significantly different from the standard at the 90% confidence level. Of these techniques, the average annual renovations method generates an estimate that on the average is the closest to the standard; on the other hand, the 2% of book value technique, which may well be the simplest of all, is more highly correlated with the standard.

On the basis of this analysis, while it may be that the most precise estimates of current depreciation can be obtained using more or less sophisticated estimation models, very reasonable results can be achieved by using the available shortcuts which require neither a knowledge of space inventories nor an historical record of actual renovations. In fact, it appears that the most practical aggregate estimate of current depreciation cost by building in terms of cost and accuracy is that derived by using 2% of the sum of historical costs. As noted in the previous section, depreciation costs do appear to vary by construction and space type. It is a question for future empirical study, then, to determine the appropriate percentages of book value for different construction and space types.

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*It is important to mention that the difference between renovations and maintenance expenditures in most schools is an arbitrary dollar level of expenditures. At the University of Washington the level at which "maintenance" becomes a "renovation" project is $2,500.

5. Calculation of Full Current Use Costs

It is an objective of the Cost Finding Principles project to determine what significant differences result when the *full* costs of depreciable assets are included in costing calculations. Therefore, full current use cost estimates were derived by adding depreciation estimates to the interest on principal value of the asset. The depreciation costs estimating technique selected in the previous section, i.e., 2% of the book value of the asset, was therefore added to the interest on asset value. Consistent with our assumption that the objective of renovations policy is to maintain asset values at a constant level, principal value of the asset was defined as the original value appropriately corrected for inflation. Full current use costs were therefore calculated using four alternative estimates of asset value: book value and book value corrected for inflation by the three cost indexes described above. The interest rate used in all calculations was 8%. The four alternative calculations are shown in Appendix V for all buildings in the sample, and the means are shown here:

1.	10% of Book Value	$ 80,433
2.	2% of Book Value plus 8% of 1971 value (Markel Index)	151,796
3.	2% of Book Value plus 8% of 1971 value (Boeckh Index)	131,407
4.	2% of Book Value plus 8% of 1971 index (Rental Index)	99,701

It is evident that the general effect of updating cost figures to 1971 prices, regardless of the index used, has a significant effect on the full current use cost estimates. In particular, it is clear that materials and labor costs have risen much more than the cost of rental services.

The final step in the use cost estimation was to compare the alternatively derived full current use costs with estimated rental values of owned buildings in order to determine which of the three asset procedures used yields costs closest to the current rental values.

Section 6 below describes briefly the procedures used for deriving the rental values and summarizes the results of rental cost estimates. In section 7 the three full current use cost estimates are compared statistically with the rental value estimates. On the basis of these comparisons, the asset valuation technique producing full current use costs closest to the rental cost estimates was selected*.

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*The argument is sometimes advanced that observed rental rates are not appropriate measures of opportunity cost for owned space because if all owned space were placed on the rental market at once the rental prices realized would be much lower. The fallacy in this argument lies in the assumption implicit in the argument that there is displacement of the *demand* for services provided by these buildings before such an increase in the rental supply takes place. As long as the service needs originally provided by these buildings *must be satisfied* in the same locale, there is no conceptual basis for arguing that the opportunity cost is less than the observed price or rental rate.

TABLE IV-A

CORRELATION MATRIX OF ALTERNATIVE DEPRECIATION CHARGE ESTIMATES

Method	1	2	3	4	5	6	7
1. 2% of Book Value	1.0000						
2. 2% of Replacement Cost 1	.9568	1.0000					
3. 2% of Replacement Cost 2	.9660	.9988	1.0000				
4. 2% of Replacement Cost 3	.9935	.9789	.9843	1.0000			
5. Average Annual Renovations	.5280	.5108	.5123	.5314	1.0000		
6. Aggregated Depreciation Costs Model Estimate	.8803	.9017	.9017	.8957	.5150	1.0000	
7. Disaggregated Depreciation Costs Model Estimate	.9072	.9175	.9191	.9220	.5528	.9259	1.0000

TABLE IV-B

STATISTICAL COMPARISON OF ALTERNATIVE DEPRECIATION CHARGE ESTIMATES

(Comparisons are made for the sample as a whole.)

	(a)	(b)	(c)	(d)	(e)
Disaggregated Depreciation Cost Model Estimates:	Mean 13,598	Standard Error 26,507	Difference In Means	$\left(\frac{\sigma_1^2 + \sigma_2^2}{n}\right)^{\frac{1}{2}}$	Confidence Limits at 5% Significance Level I = ± 1.96 X Col. (d)
Alternative:					
1. 2% of Book Value	16,087	36,891	2,489	3,150	± 6,174
2. 2% of Replacement Cost 1 Markel Index	33,927	75,766	20,329	5,566	± 10,909
3. 2% of Replacement Cost 2 Boeckh Index	28,830	64,293	15,232	4,822	± 9,451
4. 2% of Replacement Cost 3 Dept. Commerce Rental Index	20,906	48,870	7,308	3,855	± 7,556
5. Average Annual Renovations	13,718	46,052	220	3,684	± 7,221
6. Aggregated Depreciation Costs Model Estimate	12,674	22,290	924	2,401	± 4,707

6. Calculation of Rental Costs by Space Type and Generation of Rental Cost Estimates

As of June 30, 1971, the University of Washington leased building space in more than 20 different buildings representing all space types except classroom space. Data suitable for estimating rental costs by square foot according to space type were available for 17 buildings. In order to be comparable with the full current use cost estimates which are based only on depreciable assets, rental cost estimates were reduced by a percentage for land and tax values and, where appropriate, maintenance costs. Since all space types did not occur in buildings of all construction types, rental cost estimates were extrapolated for the missing space and construction types assuming proportionality between rental costs and construction costs. A full description of the procedures used to arrive at rental costs per square foot by space and construction type is contained in Appendix VI. The resulting rental costs are shown below:

Estimated Rental Costs per Square Foot

Space Type	Steel/Stone	Construction Wood	Combination
Utility	$ .29	$1.36	$ .25
Classroom	1.36	.09	.25
Laboratory	6.04	2.55	1.13
Office	1.36	.10	.35
Study Facility	1.81	.08	.24
Special Use	1.81	.24	.64
General Use	1.81	.12	.33
Support	1.81	.20	.56
Medical	6.04	.20	.79
Residential	6.04	.65	1.90

As might be expected, lab and medical care facilities have the highest cost per square foot in all three construction type groups. Also as might be expected, the rates for facilities in wooden structures are generally the lowest, those in steel/stone structures the highest, and those in combination structures in between. Calculated rental values for all buildings in the sample, adjusted for land values, taxes, and maintenance costs, are displayed in Appendix VII.

7. Comparison of Alternative Use Charge Estimates with Rental Value Estimates

The adjusted rental value estimates provide a standard of comparison on which to judge the three alternative asset valuation techniques in calculating full current use costs. Table VII-A shows the correlation of the three use cost estimates with current rental value, and Table VII-B is a worksheet comparing the means of the lease value and use charge estimates. On the basis of these comparisons, it appears that the estimates of current use charge based on the two construction cost indexes were rather high. The estimates based on the Markel index have a distribution that differs significantly from that of the rental cost estimates. Much closer estimates were obtained using either book values or the rental index weighted values.* These results suggest that use of asset values based on the indexes of construction costs can result in significant overstatement of the current costs of services provided by the University's capital stock. More satisfactory results for this purpose apparently can be obtained using an index of service values, such as the rental rate index used here, or even the uncorrected book value of the asset.

It is to be emphasized that these results apply to the derivation of *service* cost estimates only. The implication of these results is that the service flows provided by buildings constructed some years ago may now be provided by buildings constructed of materials such as concrete, which today are somewhat cheaper than the materials originally used, such as granite and brick. These results do *not* imply that the same building in every physical dimension can be constructed using cheaper materials.** In this sense of the term "replacement cost," construction cost indexes such as the Markel or Boeckh indexes used here would, of course, be more appropriate in determining the valuation figure. However, since the opportunity cost or economic cost concept refers to costs the institution conceivably might realize for use of its depreciable assets, it is not surprising that the results imply that better estimates of such costs are obtained by using an index of service costs rather than material costs.

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*Our results are, of course, sensitive to the interest rate used in calculating current use charges. However, even using a rate as low as 6% would not alter significantly the results summarized here. In fact, a 6% rate would bring the mean of the use charge using the rental cost index closer ($78,804) to the rental cost estimate mean.

**As mentioned on page 268, the architectural dimensions may affect both the value of the total university experience to students and the working conditions--and thereby the cost--of faculty.

On the basis of these investigations, using historical data from the University of Washington on construction, renovations, and rental costs, it appears that reasonable estimates of full current use costs, i.e., estimates that approximate within statistically acceptable bounds the estimated rental value of University space, can be derived by combining 2% of the book value of an asset, as an estimate of current depreciation, with interest on either the book value or on the book value corrected for inflation by means of a rental service cost index.

TABLE VII-A

CORRELATION MATRIX OF ALTERNATIVE FULL CURRENT USE COST ESTIMATES WITH CURRENT RENTAL COST ESTIMATES

2% of Book Value Plus 8% of	1	2	3	4	5
1. Book Value	1.0000				
2. Replacement Cost 1	.9578	1.0000			
3. Replacement Cost 2	.9669	.9988	1.0000		
4. Replacement Cost 3	.9954	.9824	.9876	1.0000	
Estimated Rental Cost	.8709	.8806	.8824	.8800	1.0000

TABLE VII-B

STATISTICAL COMPARISON OF ALTERNATIVE FULL CURRENT USE CHARGE ESTIMATES WITH CURRENT LEASE VALUE

	Mean	Standard Error	(c) Difference in Means	(d) $\left(\frac{\sigma_1^2 + \sigma_2^2}{n}\right)^{\frac{1}{2}}$	(e) 95% Confidence Limits ± 1.96 X Col. (d)
Current Rental Cost*	86,422	200,281			
Alternative:					
2% of Book Value Plus 8% of					
1. Book Value	80,433	184,453	6,009	18,879	± 37,003
2. Replacement Cost 1	151,796	338,531	65,354	27,273	± 53,455
3. Replacement Cost 2	131,406	292,967	44,964	24,000	± 48,229
4. Replacement Cost 3	99,709	232,166	13,267	21,260	± 41,670

*Corrected for land and maintenance costs

APPENDIX F: SUPPORT COST ALLOCATIONS ILLUSTRATED WITH SAMPLE DATA

Appenidx F illustrates the recommended support cost allocation procedures. Refer to Chapter VI for a full discussion of the procedures. The sample data used to illustrate the procedures are the same data used throughout the document.

ALLOCATION STEP 1

ACTIVITY CENTER 4.1 - LIBRARIES

Code	Support Activity Center Name	Total Direct Cost	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
4.1.0000	Libraries, Central Service	$ 35,265	$ 138,045	$ 4,404	$177,714
4.1.0050	Libraries, General Support	139,030	-	17,367	156,397
4.1.0060	Libraries, General Production	53,854	-	6,727	60,581
	TOTALS	$228,149	$ 138,045	$28,498	$394,692

Code	Recipient Activity Center Name	I/R/PS* Compensation	%	Allocated Costs
1.1.0401.20	Biology - LD**	$ 24,621	1.992	$ 7,858
1.1.0402.20	Botany - LD	11,191	.905	3,572
1.1.0402.30	Botany - UD***	17,906	1.448	5,715
1.1.0402.50	Botany - GD****	15,668	1.267	5,001
1.1.0407.20	Zoology - LD	22,382	1.810	7,144
1.1.0407.30	Zoology - UD	22,382	1.810	7,144
1.1.0407.50	Zoology - GD	13,429	1.086	4,286
1.1.0502.20	Accounting - LD	6,364	.515	2,033
1.1.0502.30	Accounting - UD	15,910	1.287	5,080
1.1.0502.50	Accounting - GD	10,455	.846	3,339
1.1.0509.20	Marketing - LD	4,899	.396	1,563
1.1.0509.30	Marketing - UD	14,698	1.189	4,693
1.1.0509.50	Marketing - GD	19,597	1.585	6,256
1.1.0802.20	Elementary Education - LD	10,871	.879	3,469
1.1.0802.30	Elementary Education - UD	51,247	4.145	16,360
1.1.0802.50	Elementary Education - GD	62,117	5.024	19,829
1.1.0803.20	Secondary Education - LD	17,086	1.382	5,455
1.1.0803.30	Secondary Education - UD	46,133	3.731	14,726
1.1.0803.50	Secondary Education - GD	88,848	7.186	28,363
1.1.0835.20	Physical Education - LD	37,637	3.044	12,014
1.1.0835.30	Physical Education - UD	10,673	.863	3,406
1.1.1501.20	English - LD	39,258	3.175	12,532
1.1.1501.30	English - UD	54,620	4.417	17,434
1.1.1501.50	English - GD	49,500	4.003	15,800
1.1.1701.20	Mathematics - LD	44,073	3.564	14,067
1.1.1702.30	Mathematics - UD	17,314	1.400	5,526
1.1.1902.20	Physics - LD	14,735	1.192	4,705
1.1.1902.30	Physics - UD	33,890	2.741	10,819
1.1.1905.20	Chemistry - LD	23,576	1.907	7,527
1.1.1905.30	Chemistry - UD	41,257	3.337	13,171
1.1.2204.20	Economics - LD	31,762	2.569	10,140
1.1.2204.30	Economics - UD	25,409	2.055	8,111
1.1.2204.50	Economics - GD	21,780	1.761	6,951
1.1.2205.20	History - LD	36,561	2.957	11,671
1.1.2205.30	History - UD	45,701	3.696	14,588
1.1.2205.50	History - GD	41,131	3.327	13,131
1.4.0000	Extension Instruction for Credit	78,496	6.349	25,059
2.1.0500	Bureau of Business Research	36,200	2.928	11,557
2.2.0401	Waterfowl Migration Study	31,000	2.507	9,895
2.2.0402	Mutation Recurrence Project	22,000	1.779	7,022
3.1.0000	Public Service, Community Education	10,704	.866	3,418
3.1.0502	Community Education, Accounting	1,364	.110	434
3.1.0509	Community Education, Marketing	980	.079	312
3.1.0802	Community Education, Elementary Education	1,553	.126	497
3.1.1902	Community Education, Physics	4,420	.357	1,409
3.2.0502	Community Service, Accounting	1,818	.147	580
3.2.1501	Community Service, English	1,707	.138	545
3.2.2205	Community Service, History	1,523	.123	485
	TOTALS	$1,236,446	100.000	$394,692

*Instruction/Research/Public Service

**Lower Division

***Upper Division

****Graduate

ALLOCATION STEP 2

ACTIVITY CENTER 4.3 - AUDIO/VISUAL SERVICES

NOTE: This allocation step is not illustrated because no direct costs were assigned to this activity center.

ALLOCATION STEP 3

ACTIVITY CENTER 4.4 - COMPUTING SUPPORT

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
4.4.0000	Computing Support	$42,252	$ 14,835	$5,278	$62,365

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0401.20	Biology - LD*	$ 33,[illegible]12	2.164	$ 1,350
1.1.0402.20	Botany - LD	15,387	1.009	629
1.1.0402.30	Botany - UD**	23,966	1.571	980
1.1.0402.50	Botany - GD***	20,795	1.363	850
1.1.0407.20	Zoology - LD	28,442	1.864	1,163
1.1.0407.30	Zoology - UD	28,908	1.895	1,182
1.1.0407.50	Zoology - GD	18,091	1.186	740
1.1.0502.20	Accounting - LD	7,608	.499	311
1.1.0502.30	Accounting - UD	18,811	1.233	769
1.1.0502.50	Accounting - GD	17,119	1.122	700
1.1.0509.20	Marketing - LD	5,735	.376	235
1.1.0509.30	Marketing - UD	20,812	1.364	851
1.1.0509.50	Marketing - GD	22,730	1.490	929
1.1.0802.20	[illegible]ducation - LD	12,837	.841	525
1.1.0802.30	[illegible] Education - UD	62,111	4.072	2,540
1.1.0802.50	Elementary Education - GD	71,947	4.716	2,941
1.1.0803.20	Secondary Education - LD	19,472	1.276	796
1.1.0803.30	Secondary Education - UD	52,098	3.415	2,130
1.1.0803.50	Secondary Education - GD	106,380	6.973	4,349
1.1.0835.20	Physical Education - LD	41,031	2.690	1,678
1.1.0835.30	Physical Education - UD	11,805	.774	483
1.1.1501.20	English - LD	45,989	3.015	1,880
1.1.1501.30	English - UD	69,636	4.565	2,847
1.1.1501.50	English - GD	57,193	3.749	2,338
1.1.1701.20	Mathematics - LD	52,309	3.429	2,139
1.1.1701.30	Mathematics - UD	19,638	1.287	803
1.1.1902.20	Physics - LD	17,983	1.179	735
1.1.1902.30	Physics - UD	42,280	2.772	1,729
1.1.1905.20	Chemistry - LD	28,718	1.883	1,174
1.1.1905.30	Chemistry - UD	51,542	3.379	2,107
1.1.2204.20	Economics - LD	37,578	2.463	1,536
1.1.2204.30	Economics - UD	29,807	1.954	1,219
1.1.2204.50	Economics - GD	25,752	1.688	1,053
1.1.2205.20	History - LD	42,153	2.763	1,723
1.1.2205.30	History - UD	54,192	3.552	2,215
1.1.2205.50	History - GD	47,758	3.131	1,953
1.4.0000	Extension Instruction for Credit	94,959	6.225	3,877
2.1.0500	Bureau of Business Research	49,500	3.245	2,024
2.2.0401	Waterfowl Migration Study	47,800	3.133	1,954
2.2.0402	Mutation Recurrence Project	36,315	2.381	1,485
3.1.0000	Public Service, Community Education	12,949	.849	529
3.1.0502	Community Education, Accounting	1,364	.089	56
3.1.0509	Community Education, Marketing	980	.064	40
3.1.0802	Community Education, Elementary Education	1,553	.102	64
3.1.1902	Community Education, Physics	4,420	.290	181
3.2.0000	Public Service, Community Service	8,990	.589	367
3.2.0502	Community Service, Accounting	1,818	.119	74
3.2.1501	Community Service, English	1,707	.112	70
3.2.2205	Community Service, History	1,523	.100	62
	TOTALS	$1,525,503	100.000	$62,365

*Lower Division

**Upper Division

***Graduate

ALLOCATION STEP 4

ACTIVITY CENTER 4.5 - ANCILLARY SUPPORT

NOTE: This allocation step is not illustrated because no direct costs were assigned to this activity center.

ALLOCATION STEP 5

ACTIVITY CENTER 4.6 - ACADEMIC ADMINISTRATION AND PERSONNEL DEVELOPMENT

STEP 5A: Allocate the total costs assigned to the office of the Dean of Arts and Sciences (4.6.0000) to all other academic administrative activity centers having HEGIS discipline codes (4.6.XXXX).

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Building	Capital Cost-Equipment	Total Costs To Be Allocated
4.6.0000	Academic Admin. Dean, Arts and Sciences	$107,000	$ 15,974	$13,365	$136,339

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
4.6.0401	Academic Administration, Biology	$ 20,144	6.019	$ 8,205
4.6.0402	Academic Administration, Botany	24,621	7.356	10,029
4.6.0407	Academic Administration, Zoology	22,382	6.687	9,117
4.6.0500	Academic Administration, Dean of Business & Economics	44,510	13.298	18,130
4.6.0502	Academic Administration, Accounting	5,455	1.630	2,222
4.6.0509	Academic Administration, Marketing	5,879	1.756	2,394
4.6.0800	Academic Administration, Dean of Education	41,432	12.378	16,876
4.6.0802	Academic Administration, Elementary Education	18,635	5.567	7,590
4.6.0803	Academic Administration, Secondary Education	13,669	4.084	5,568
4.6.0835	Academic Administration, Physical Education	6,179	1.846	2,517
4.6.1501	Academic Administration, English	17,069	5.100	6,953
4.6.1701	Academic Administration, Mathematics	13,379	3.997	5,449
4.6.1902	Academic Administration, Physics	13,261	3.962	5,402
4.6.1905	Academic Administration, Chemistry	14,735	4.402	6,002
4.6.2204	Academic Administration, Economics	10,890	3.254	4,436
4.6.2205	Academic Administration, History	22,850	6.827	9,311
4.6.4900	Academic Administration, Interdisciplinary Studies	39,621	11.837	16,138
	TOTALS	$334,711	100.000	$136,339

ALLOCATION STEP 5

ACTIVITY CENTER 4.6 - ACADEMIC ADMINISTRATION AND PERSONNEL DEVELOPMENT (Con't.)

STEP 5B: Allocate the total costs assigned to the office of the Dean of Business and Economics (4.6.0500) to all activity centers to which it provides administrative support.

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Equipment	Support Cost 4.6.0000	Total Costs To Be Allocated*
4.6.0500	Academic Admin., Dean of Bus. & Econ.	$44,510	$ 5,558	$18,130	$68,198

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
2.1.0500	Bureau of Business Research	$49,500	69.014	$47,067
4.6.0502	Academic Administration, Accounting	5,455	7.606	5,187
4.6.0509	Academic Administration, Marketing	5,879	8.197	5,590
4.6.2204	Academic Administration, Economics	10,890	15.183	10,354
	TOTALS	$71,724	100.000	$68,198

STEP 5C: Allocate the total costs assigned to the office of the Dean of Education (4.6.0800) to all activity centers to which it provides administrative support.

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Equipment	Support Cost 4.6.0000	Total Costs To Be Allocated*
4.6.0800	Academic Admin., Dean of Education	$41,432	$ 5,175	$16,876	$63,483

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
4.6.0802	Academic Administration, Elementary Education	$18,635	48.424	$30,741
4.6.0803	Academic Administration, Secondary Education	13,669	35.520	22,549
4.6.0835	Academic Administration, Physical Education	6,179	16.056	10,193
	TOTALS	$38,483	100.000	$63,483

*NOTE: There were no capital costs for buildings assigned to these activity centers.

ALLOCATION STEP 5

ACTIVITY CENTER 4.6 - ACADEMIC ADMINISTRATION AND PERSONNEL DEVELOPMENT (Con't.)

STEP 5D: Allocate the total costs assigned to the office of the Dean of Interdisciplinary Studies (4.6.4900) to all activity centers to which it provides administrative support.

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Equipment	Support Cost 4.6.0000	Total Costs To Be Allocated*
4.6.4900	Academic Admin., Dean of Interdis. Studies	$39,621	$ 4,949	$16,138	$60,708

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
4.6.0401	Academic Administration, Biology	$ 20,144	9.631	$ 5,847
4.6.0402	Academic Administration, Botany	24,621	11.772	7,147
4.6.0407	Academic Administration, Zoology	22,382	10.702	6,497
4.6.0502	Academic Administration, Accounting	5,455	2.608	1,583
4.6.0509	Academic Administration, Marketing	5,879	2.811	1,707
4.6.0802	Academic Administration, Elementary Education	18,635	8.910	5,409
4.6.0803	Academic Administration, Secondary Education	13,669	6.536	3,968
4.6.0835	Academic Administration, Physical Education	6,179	2.954	1,793
4.6.1501	Academic Administration, English	17,069	8.161	4,954
4.6.1701	Academic Administration, Mathematics	13,379	6.397	3,884
4.6.1902	Academic Administration, Physics	13,261	6.340	3,849
4.6.1905	Academic Administration, Chemistry	14,735	7.045	4,277
4.6.2204	Academic Administration, Economics	10.890	5.207	3,161
4.6.2205	Academic Administration, History	22,850	10.926	6,632
	TOTALS	$209,148	100.000	$60,708

*NOTE: There were no capital costs for buildings assigned to these activity centers.

ALLOCATION STEP 5

ACTIVITY CENTER 4.6 - ACADEMIC ADMINISTRATION AND PERSONNEL DEVELOPMENT (Con't.)

STEP 5E: Allocate the total costs assigned to each of the specific disciplinary administrative units (4.6.XXXX) to all activity centers to which it provides support. Sample data for three disciplines are illustrated.

Costs to be Allocated	4.6.0402 Academic Administration-Botany	4.6.0502 Academic Administration-Accounting	4.6.1501 Academic Administration-English
Total Direct Costs	$ 24,621	$ 5,455	$17,069
Capital Cost - Buildings	-	-	-
Capital Cost - Equipment	3,074	683	2,131
Support Cost - 4.6.0000	10,029	2,222	6,953
Support Cost - 4.6.4900	7,147	1,583	4,954
Support Cost - 4.6.0500	-	5,187	-
TOTAL COSTS TO BE ALLOCATED	$ 44,871	$15,130	$31,107

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0402.20	Botany - LD*	$ 15,387	15.951	$ 7,157
1.1.0402.30	Botany - UD**	23,966	24.845	11,149
1.1.0402.50	Botany - GD***	20,795	21.557	9,673
2.2.0402	Mutation Recurrence Project	36,315	37.647	16,892
	TOTALS	$ 96,463	100.000	$44,871
1.1.0502.20	Accounting - LD	$ 7,608	16.284	$ 2,464
1.1.0502.30	Accounting - UD	18,811	40.263	6,091
1.1.0502.50	Accounting - GD	17,119	36.642	5,544
3.1.0502	Community Education, Accounting	1,364	2.920	442
3.2.0502	Community Service, Accounting	1,818	3.891	589
	TOTALS	$ 46,720	100.000	$15,130
1.1.1501.20	English - LD	$ 45,989	26.351	$ 8,197
1.1.1501.30	English - UD	69,636	39.900	12,412
1.1.1501.50	English - GD	57,193	32.771	10,194
3.2.1501	Community Service, English	1,707	.978	304
	TOTALS	$174,525	100.000	$31,107

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 6

ACTIVITY CENTER 4.7 - COURSE AND CURRICULUM DEVELOPMENT

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
4.7.0401	Course & Curriculum Develop. - Biology	$ 4,476	-	$ 560	$ 5,036
4.7.0402	Course & Curriculum Develop. - Botany	8,953	-	1,120	10,073
4.7.0802	Course & Curriculum Develop. - Elem. Ed.	7,765	-	972	8,737
4.7.0835	Course & Curriculum Develop. - Phys. Ed.	1,685	-	211	1,896
4.7.1501	Course & Curriculum Develop. - English	3,414	-	427	3,841
4.7.1701	Course & Curriculum Develop. - Math.	3,935	-	491	4,426
4.7.1905	Course & Curriculum Develop. - Chemistry	1,473	-	182	1,655
4.7.2204	Course & Curriculum Develop. - Economics	907	-	113	1,020
4.7.2205	Course & Curriculum Develop. - History	4,570	-	570	5,140
	TOTALS	$37,178	-	$4,646	$41,824

Code	Recipient Activity Center Name	I/R/PS* Compensation	%	Allocated Costs
1.1.0401.20	Biology - LD**	$ 24,621	100.000	$ 5,036
1.1.0402.20	Botany - LD	$ 11,191	24.999	$ 2,518
1.1.0402.30	Botany - UD***	17,906	40.000	4,029
1.1.0402.50	Botany - GD****	15,668	35.001	3,526
	TOTALS	$ 44,765	100.000	$10,073
1.1.0802.20	Elementary Education - LD	$ 10,871	8.750	$ 764
1.1.0802.30	Elementary Education - UD	51,247	41.250	3,604
1.1.0802.50	Elementary Education - GD	62,117	50.000	4,369
	TOTALS	$ 124,235	100.000	$ 8,737
1.1.0835.20	Physical Education - LD	$ 37,637	77.907	$ 1,477
1.1.0835.30	Physical Education - UD	10,673	22.093	419
	TOTALS	$ 48,310	100.000	$ 1,896
1.1.1501.20	English - LD	$ 39,258	27.381	$ 1,052
1.1.1501.30	English - UD	54,620	38.095	1,464
1.1.1501.50	English - GD	49,500	34.524	1,325
	TOTALS	$ 143,378	100.000	$ 3,841
1.1.1701.20	Mathematics - LD	$ 44,073	71.795	$ 3,178
1.1.1701.30	Mathematics - UD	17,314	28.205	1,248
	TOTALS	$ 61,387	100.000	$ 4,426
1.1.1905.20	Chemistry - LD	$ 23,576	36.364	$ 602
1.1.1905.30	Chemistry - UD	41,257	63.636	1,053
	TOTALS	$ 64,833	100.000	$ 1,655

*Instruction/Research/Public Service
**Lower Division
***Upper Division
****Graduate

ALLOCATION STEP 6

ACTIVITY CENTER 4.7 - COURSE AND CURRICULUM DEVELOPMENT (Continued)

Code	Recipient Activity Center Name	I/R/PS Compensation	%	Allocated Costs
1.1.2204.20	Economics - LD	$ 31,762	40.230	$ 410
1.1.2204.30	Economics - UD	25,409	32.183	328
1.1.2204.50	Economics - GD	21,780	27.587	282
	TOTALS	$ 78,951	100.000	$1,020
1.1.2205.20	History - LD	$ 36,561	29.630	$1,524
1.1.2205.30	History - UD	45,701	37.037	1,903
1.1.2205.50	History - GD	41,131	33.333	1,713
	TOTALS	$ 123,393	100.000	$5,140

ALLOCATION STEP 7

ACTIVITY CENTER 5.2 - SUPPLEMENTARY EDUCATIONAL SERVICES

Code	Support Activity Center Name	Total Direct Costs	Capital Cost Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
5.2.0000	Remedial Instruction Skills	$28,550	$ 6,848	$3,565	$38,963
5.2.0070	FORTRAN Programming	26,800	-	3,349	30,149
	TOTALS	$55,350	$ 6,848	$6,914	$69,112

Code	Recipient Activity Center Name	Semester Credits	%	Allocated Costs
1.1.1401.20	Biology - LD*	801	4.131	$ 2,855
1.1.0402.20	Botany - LD	268	1.381	955
1.1.0402.30	Botany - UD**	268	1.381	955
1.1.0402.50	Botany - GD***	94	.487	335
1.1.0407.20	Zoology - LD	392	2.021	1,397
1.1.0407.30	Zoology - UD	312	1.611	1,112
1.1.0407.50	Zoology - GD	99	.509	353
1.1.0502.20	Accounting - LD	182	.937	649
1.1.0502.30	Accounting - UD	288	1.485	1,026
1.1.0502.50	Accounting - GD	170	.879	606
1.1.0509.20	Marketing - LD	120	.620	428
1.1.0509.30	Marketing - UD	282	1.453	1,005
1.1.0509.50	Marketing - GD	190	.980	677
1.1.0802.20	Elementary Education - LD	369	1.903	1,315
1.1.0802.30	Elementary Education - UD	1,162	5.993	4,142
1.1.0802.50	Elementary Education - GD	865	4.461	3,083
1.1.0803.20	Secondary Education - LD	478	2.472	1,704
1.1.0803.30	Secondary Education - UD	870	4.486	3,101
1.1.0803.50	Secondary Education - GD	1,053	5.425	3,753
1.1.0835.20	Physical Education - LD	795	4.098	2,834
1.1.0835.30	Physical Education - UD	130	.673	463
1.1.1501.20	English - LD	1,283	6.611	4,573
1.1.1501.30	English - UD	1,225	6.317	4,367
1.1.1501.50	English - GD	487	2.518	1,736
1.1.1701.20	Mathematics - LD	1,176	6.068	4,192
1.1.1701.30	Mathematics - UD	273	1.405	973
1.1.1902.20	Physics - LD	192	.991	684
1.1.1902.30	Physics - UD	292	1.505	1,041
1.1.1905.20	Chemistry - LD	357	1.841	1,272
1.1.1905.30	Chemistry - UD	436	2.249	1,554
1.1.2204.20	Economics - LD	894	4.614	3,187
1.1.2204.30	Economics - UD	435	2.246	1,550
1.1.2204.50	Economics - GD	249	1.278	887
1.1.2205.20	History - LD	1,108	5.708	3,949
1.1.2205.30	History - UD	1,121	5.778	3,995
1.1.2205.50	History - GD	464	2.403	1,654
1.4.0000.00	Extension Instruction for Credit	210	1.082	750
	TOTALS	19,390	100.000	$69,112

* Lower Division
** Upper Division
*** Graduate

ALLOCATION STEP 8

ACTIVITY CENTER 5.3 - COUNSELING AND CAREER GUIDANCE

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
5.3.0000	Counseling, Career Guidance	$46,160	$ 7,987	$5,764	$59,911

Code	Recipient Activity Center Name	Semester Credits	%	Allocated Costs
1.1.0401.20	Biology - LD*	801	4.131	$ 2,475
1.1.0402.20	Botany - LD	268	1.381	828
1.1.0402.30	Botany - UD**	268	1.381	828
1.1.0402.50	Botany - GD***	94	.487	291
1.1.0407.20	Zoology - LD	392	2.021	1,211
1.1.0407.30	Zoology - UD	312	1.611	964
1.1.0407.50	Zoology - GD	99	.509	306
1.1.0502.20	Accounting - LD	182	.937	563
1.1.0502.30	Accounting - UD	288	1.485	890
1.1.0502.50	Accounting - GD	170	.879	525
1.1.0509.20	Marketing - LD	120	.620	371
1.1.0509.30	Marketing - UD	282	1.453	871
1.1.0509.50	Marketing - GD	190	.980	587
1.1.0802.20	Elementary Education - LD	369	1.903	1,140
1.1.0802.30	Elementary Education - UD	1,162	5.993	3,590
1.1.0802.50	Elementary Education - GD	865	4.461	2,673
1.1.0803.20	Secondary Education - LD	478	2.472	1,477
1.1.0803.30	Secondary Education - UD	870	4.486	2,688
1.1.0803.50	Secondary Education - GD	1,053	5.425	3,254
1.1.0835.20	Physical Education - LD	795	4.098	2,456
1.1.0835.30	Physical Education - UD	130	.673	401
1.1.1501.20	English - LD	1,283	6.611	3,964
1.1.1501.30	English - UD	1,225	6.317	3,785
1.1.1501.50	English - GD	487	2.518	1,505
1.1.1701.20	Mathematics - LD	1,176	6.069	3,634
1.1.1701.30	Mathematics - UD	273	1.405	844
1.1.1902.20	Physics - LD	192	.991	593
1.1.1902.30	Physics - UD	292	1.505	902
1.1.1905.20	Chemistry - LD	357	1.841	1,103
1.1.1905.30	Chemistry - UD	436	2.249	1,347
1.1.2204.20	Economics - LD	894	4.614	2,763
1.1.2204.30	Economics - UD	435	2.246	1,344
1.1.2204.50	Economics - GD	249	1.278	769
1.1.2205.20	History - LD	1,108	5.708	3,423
1.1.2205.30	History - UD	1,121	5.778	3,463
1.1.2205.50	History - GD	464	2.403	1,434
1.4.0000.00	Extension Instruction for Credit	210	1.082	649
	TOTALS	19,390	100.000	$59,911

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 9

ACTIVITY CENTER 5.4 - FINANCIAL AID ADMINISTRATION

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
5.4.0000	Financial Aid Administration	$31,190	$ 6,848	$3,899	$41,937

Code	Recipient Activity Center Name	Semester Credits	%	Allocated Costs
1.1.0401.20	Biology - LD*	801	4.131	$ 1,732
1.1.0402.20	Botany - LD	268	1.381	580
1.1.0402.30	Botany - UD**	268	1.381	580
1.1.0402.50	Botany - GD***	94	.487	203
1.1.0407.20	Zoology - LD	392	2.021	848
1.1.0407.30	Zoology - UD	312	1.611	675
1.1.0407.50	Zoology - GD	99	.509	214
1.1.0502.20	Accounting - LD	182	.937	394
1.1.0502.30	Accounting - UD	288	1.485	623
1.1.0502.50	Accounting - GD	170	.879	368
1.1.0509.20	Marketing - LD	120	.620	260
1.1.0509.30	Marketing - UD	282	1.453	610
1.1.0509.50	Marketing - GD	190	.980	411
1.1.0802.20	Elementary Education - LD	369	1.903	798
1.1.0802.30	Elementary Education - UD	1,162	5.993	2,513
1.1.0802.50	Elementary Education - GD	865	4.461	1,871
1.1.0803.20	Secondary Education - LD	478	2.472	1,034
1.1.0803.30	Secondary Education - UD	870	4.486	1,882
1.1.0803.50	Secondary Education - GD	1,053	5.425	2,278
1.1.0835.20	Physical Education - LD	795	4.098	1,719
1.1.0835.30	Physical Education - UD	130	.673	281
1.1.1501.20	English - LD	1,283	6.611	2,775
1.1.1501.30	English - UD	1,225	6.317	2,650
1.1.1501.50	English - GD	487	2.518	1,053
1.1.1701.20	Mathematics - LD	1,176	6.068	2,543
1.1.1701.30	Mathematics - UD	273	1.405	590
1.1.1902.20	Physics - LD	192	.991	415
1.1.1902.30	Physics - UD	292	1.505	632
1.1.1905.20	Chemistry - LD	357	1.841	772
1.1.1905.30	Chemistry - UD	436	2.249	943
1.1.2204.20	Economics - LD	894	4.614	1,934
1.1.2204.30	Economics - UD	435	2.246	941
1.1.2204.50	Economics - GD	249	1.278	538
1.1.2205.20	History - LD	1,108	5.708	2,396
1.1.2205.30	History - UD	1,121	5.778	2,424
1.1.2205.50	History - GD	464	2.403	1,004
1.4.0000.00	Extension Instruction for Credit	210	1.082	453
	TOTALS	19,390	100.000	$41,937

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 10

ACTIVITY CENTER 5.6 - STUDENT ADMISSIONS AND RECORDS

Code	Support Activity Center Name	Total Direct Costs	Capital Cost Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
5.6.0000	Student Admissions and Records	$64,203	$11,404	$8,018	$83,625

Code	Recipient Activity Center Name	Semester Credits	%	Allocated Costs
1.1.0401.20	Biology - LD*	801	4.131	$ 3,452
1.1.0402.20	Botany - LD	268	1.381	1,156
1.1.0402.30	Botany - UD**	268	1.381	1,156
1.1.0402.50	Botany - GD***	94	.487	406
1.1.0407.20	Zoology - LD	392	2.021	1,691
1.1.0407.30	Zoology - UD	312	1.611	1,346
1.1.0407.50	Zoology - GD	99	.509	427
1.1.0502.20	Accounting - LD	182	.937	785
1.1.0502.30	Accounting - UD	288	1.485	1,242
1.1.0502.50	Accounting - GD	170	.879	733
1.1.0509.20	Marketing - LD	120	.620	518
1.1.0509.30	Marketing - UD	282	1.453	1,216
1.1.0509.50	Marketing - GD	190	.980	820
1.1.0802.20	Elementary Education - LD	369	1.903	1,591
1.1.0802.30	Elementary Education - UD	1,162	5.993	5,012
1.1.0802.50	Elementary Education - GD	865	4.461	3,731
1.1.0803.20	Secondary Education - LD	478	2.472	2,061
1.1.0803.30	Secondary Education - UD	870	4.486	3,752
1.1.0803.50	Secondary Education - GD	1,053	5.425	4,542
1.1.0835.20	Physical Education - LD	795	4.098	3,429
1.1.0835.30	Physical Education - UD	130	.673	560
1.1.1501.20	English - LD	1,283	6.611	5,533
1.1.1501.30	English - UD	1,225	6.317	5,283
1.1.1501.50	English - GD	487	2.518	2,101
1.1.1701.20	Mathematics - LD	1,176	6.068	5,072
1.1.1701.30	Mathematics - UD	273	1.405	1,177
1.1.1902.20	Physics - LD	192	.991	828
1.1.1902.30	Physics - UD	292	1.505	1,259
1.1.1905.20	Chemistry - LD	357	1.841	1,540
1.1.1905.30	Chemistry - UD	436	2.249	1,881
1.1.2204.20	Economics - LD	894	4.614	3,856
1.1.2204.30	Economics - UD	435	2.246	1,876
1.1.2204.50	Economics - GD	249	1.278	1,074
1.1.2205.20	History - LD	1,108	5.708	4,778
1.1.2205.30	History - UD	1,121	5.778	4,834
1.1.2205.50	History - GD	464	2.403	2,001
1.4.0000.00	Extension Instruction for Credit	210	1.082	906
	TOTALS	19,390	100.000	$83,625

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 11

ACTIVITY CENTER 6.1 - EXECUTIVE MANAGEMENT

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
6.1.8810	Executive Director	$122,130	$ 6,848	$15,255	$144,233
6.1.8120	Planning and Programming	35,980	9,126	4,493	49,599
6.1.8130	Legal Services	6,750	-	845	7,595
	TOTALS	$164,860	$ 15,974	$20,593	$201,427

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0401.20	Biology - LD*	$ 33,012	1.476	$ 2,973
1.1.0402.20	Botany - LD	15,387	.688	1,386
1.1.0402.30	Botany - UD**	23,966	1.072	2,159
1.1.0402.50	Botany - GD***	20,795	.930	1,873
1.1.0407.20	Zoology - LD	28,442	1.272	2,562
1.1.0407.30	Zoology - UD	28,908	1.293	2,604
1.1.0407.50	Zoology - GD	18,091	.809	1,630
1.1.0502.20	Accounting - LD	7,608	.340	685
1.1.0502.30	Accounting - UD	18,811	.841	1,694
1.1.0502.50	Accounting - GD	17,119	.766	1,543
1.1.0509.20	Marketing - LD	5,735	.256	516
1.1.0509.30	Marketing - UD	20,812	.931	1,875
1.1.0509.50	Marketing - GD	22,730	1.017	2,049
1.1.0802.20	Elementary Education - LD	12,837	.574	1,156
1.1.0802.30	Elementary Education - UD	62,111	2.778	5,596
1.1.0802.50	Elementary Education - GD	71,947	3.218	6,482
1.1.0803.20	Secondary Education - LD	19,472	.871	1,754
1.1.0803.30	Secondary Education - UD	52,098	2.330	4,693
1.1.0803.50	Secondary Education - GD	106,380	4.757	9,582
1.1.0835.20	Physical Education - LD	41,031	1.835	3,696
1.1.0835.30	Physical Education - UD	11,805	.528	1,064
1.1.1501.20	English - LD	45,989	2.057	4,143
1.1.1501.30	English - UD	69,636	3.114	6,272
1.1.1501.50	English - GD	57,193	2.558	5,153
1.1.1701.20	Mathematics - LD	52,309	2.339	4,711
1.1.1701.30	Mathematics - UD	19,638	.878	1,769
1.1.1902.20	Physics - LD	17,983	.804	1,619
1.1.1902.30	Physics - UD	42,280	1.891	3,809
1.1.1905.20	Chemistry - LD	28,718	1.284	2,586
1.1.1905.30	Chemistry - UD	51,542	2.305	4,643
1.1.2204.20	Economics - LD	37,578	1.681	3,386
1.1.2204.30	Economics - UD	29,807	1.333	2,685
1.1.2204.50	Economics - GD	25,752	1.152	2,320
1.1.2205.20	History - LD	42,153	1.885	3,797
1.1.2205.30	History - UD	54,192	2.424	4,883
1.1.2205.50	History - GD	47,758	2.136	4,302
1.4.0000	Extension Instruction for Credit	94,959	4.247	8,555
2.1.0500	Bureau of Business Research	49,500	2.214	4,460
2.2.0401	Waterfowl Migration Study	47,800	2.138	4,307
2.2.0402	Mutation Recurrence Project	36,315	1.624	3,271

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 11

ACTIVITY CENTER 6.1 - EXECUTIVE MANAGEMENT

(Continued)

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
3.1.0000	Public Service, Community Education	$ 12,949	.579	$ 1,166
3.1.0502	Community Education, Accounting	1,364	.061	123
3.1.0509	Community Education, Marketing	980	.044	89
3.1.0802	Community Education, Elementary Education	1,553	.069	139
3.1.1902	Community Education, Physics	4,420	.198	399
3.2.0000	Public Service, Community Service	8,990	.402	810
3.2.0502	Community Service, Accounting	1,818	.081	163
3.2.1501	Community Service, English	1,707	.076	153
3.2.2205	Community Service, History	1,523	.068	137
4.2.0000	Museums and Galleries	21,262	.951	1,916
5.1.7110	Student Services	55,750	2.493	5,022
5.1.7120	Sterling Lecture Series	15,415	.689	1,388
5.1.7140	Student Union	45,700	2.044	4,117
5.1.7200	Intercollgiate Athletics	271,220	12.128	24,428
5.5.7310	Food Services*	114,580	5.124	10,321
5.5.7320	Health Services	70,400	3.148	6,341
5.5.7330	Housing Services*	81,800	3.658	7,368
5.5.7340	Retail Services*	34,450	1.541	3,104
	TOTALS	$2,236,080	100.000	$201,427

*Inventories and cost of goods sold have been excluded from these accounts.

ALLOCATION STEP 12

ACTIVITY CENTER 6.2 - FISCAL OPERATIONS

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
6.2.8210	Financial Operations	$49,700	$ 7,987	$6,206	$63,893

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0401.20	Biology - LD*	$ 33,012	1.476	$ 943
1.1.0402.20	Botany - LD	15,387	.688	440
1.1.0402.30	Botany - UD**	23,966	1.072	685
1.1.0402.50	Botany - GD***	20,795	.930	594
1.1.0407.20	Zoology - LD	28,442	1.272	813
1.1.0407.30	Zoology - UD	28,908	1.293	826
1.1.0407.50	Zoology - GD	18,091	.809	517
1.1.0502.20	Accounting - LD	7,608	.340	217
1.1.0502.30	Accounting - UD	18,811	.841	537
1.1.0502.50	Accounting - GD	17,119	.766	489
1.1.0509.20	Marketing - LD	5,735	.256	164
1.1.0509.30	Marketing - UD	20,812	.931	595
1.1.0509.50	Marketing - GD	22,730	1.017	650
1.1.0802.20	Elementary Education - LD	12,837	.574	367
1.1.0802.30	Elementary Education - UD	62,111	2.778	1,775
1.1.0802.50	Elementary Education - GD	71,947	3.218	2,056
1.1.0803.20	Secondary Education - LD	19,472	.871	557
1.1.0803.30	Secondary Education - UD	52,098	2.330	1,489
1.1.0803.50	Secondary Education - GD	106,380	4.757	3,039
1.1.0835.20	Physical Education - LD	41,031	1.835	1,172
1.1.0835.30	Physical Education - UD	11,805	.528	337
1.1.1501.20	English - LD	45,989	2.057	1,314
1.1.1501.30	English - UD	69,636	3.114	1,990
1.1.1501.50	English - GD	57,193	2.558	1,634
1.1.1701.20	Mathematics - LD	52,309	2.339	1,494
1.1.1701.30	Mathematics - UD	19,638	.878	561
1.1.1902.20	Physics - LD	17,983	.804	514
1.1.1902.30	Physics - UD	42,280	1.891	1,208
1.1.1905.20	Chemistry - LD	28,718	1.284	820
1.1.1905.30	Chemistry - UD	51,542	2.305	1,473
1.1.2204.20	Economics - LD	37,578	1.681	1,074
1.1.2204.30	Economics - UD	29,807	1.333	852
1.1.2204.50	Economics - GD	25,752	1.152	736
1.1.2205.20	History - LD	42,153	1.885	1,204
1.1.2205.30	History - UD	54,192	2.424	1,549
1.1.2205.50	History - GD	47,758	2.136	1,365
1.4.0000	Extension Instruction for Credit	94,959	4.247	2,714
2.1.0500	Bureau of Business Research	49,500	2.214	1,415
2.2.0401	Waterfowl Migration Study	47,800	2.138	1,366
2.2.0402	Mutation Recurrence Project	36,315	1.624	1,038
3.1.0000	Public Service, Community Education	12,949	.579	370
3.1.0502	Community Education, Accounting	1,364	.061	39
3.1.0509	Community Education, Marketing	980	.044	28
3.1.0802	Community Education, Elementary Education	1,553	.069	44
3.1.1902	Community Education, Physics	4,420	.198	127

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 12

ACTIVITY CENTER 6.2 - FISCAL OPERATIONS

(Continued)

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
3.2.0000	Public Service, Community Service	$ 8,990	.402	$ 257
3.2.0502	Community Service, Accounting	1,818	.081	52
3.2.1501	Community Service, English	1,707	.076	49
3.2.2205	Community Service, History	1,523	.068	43
4.2.0000	Museums and Galleries	21,262	.951	608
5.1.7110	Student Services	55,750	2.493	1,593
5.1.7120	Sterling Lecture Series	15,415	.689	440
5.1.7140	Student Union	45,700	2.044	1,306
5.1.7200	Intercollegiate Athletics	271,220	12.128	7,747
5.5.7310	Food Services*	114,580	5.124	3,274
5.5.7320	Health Services	70,400	3.148	2,011
5.5.7330	Housing Services*	81,800	3.658	2,337
5.5.7340	Retail Services*	34,450	1.541	985
	TOTALS	$2,236,080	100.000	$63,893

*Inventories and cost of goods sold have been excluded from these accounts.

ALLOCATION STEP 13

ACTIVITY CENTER 6.3 - GENERAL ADMINISTRATIVE SERVICES

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
6.3.8160	Computing Center	$89,787	$ 7,987	$11,214	$108,988

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0401.20	Biology - LD*	$ 33,012	1.476	$ 1,609
1.1.0402.20	Botany - LD	15,387	.688	750
1.1.0402.30	Botany - UD**	23,966	1.072	1,168
1.1.0402.50	Botany - GD***	20,795	.930	1,014
1.1.0407.20	Zoology - LD	28,442	1.272	1,386
1.1.0407.30	Zoology - UD	28,908	1.293	1,409
1.1.0407.50	Zoology - GD	18,091	.809	882
1.1.0502.20	Accounting - LD	7,608	.340	371
1.1.0502.30	Accounting - UD	18,811	.841	917
1.1.0502.50	Accounting - GD	17,119	.766	835
1.1.0509.20	Marketing - LD	5,735	.256	279
1.1.0509.30	Marketing - UD	20,812	.931	1,015
1.1.0509.50	Marketing - GD	22,730	1.017	1,108
1.1.0802.20	Elementary Education - LD	12,837	.574	626
1.1.0802.30	Elementary Education - UD	62,111	2.778	3,028
1.1.0802.50	Elementary Education - GD	71,947	3.218	3,507
1.1.0803.20	Secondary Education - LD	19,472	.871	949
1.1.0803.30	Secondary Education - UD	52,098	2.330	2,539
1.1.0803.50	Secondary Education - GD	106,380	4.757	5,185
1.1.0835.20	Physical Education - LD	41,031	1.835	2,000
1.1.0835.30	Physical Education - UD	11,805	.528	575
1.1.1501.20	English - LD	45,989	2.057	2,242
1.1.1501.30	English - UD	69,636	3.114	3,394
1.1.1501.50	English - GD	57,193	2.558	2,788
1.1.1701.20	Mathematics - LD	52,309	2.339	2,549
1.1.1701.30	Mathematics - UD	19,638	.878	957
1.1.1902.20	Physics - LD	17,983	.804	876
1.1.1902.30	Physics - UD	42,280	1.891	2,061
1.1.1905.20	Chemistry - LD	28,718	1.284	1,399
1.1.1905.30	Chemistry - UD	51,542	2.305	2,512
1.1.2204.20	Economics - LD	37,578	1.681	1,832
1.1.2204.30	Economics - UD	29,807	1.333	1,453
1.1.2204.50	Economics - GD	25,752	1.152	1,256
1.1.2205.20	History - LD	42,153	1.885	2,054
1.1.2205.30	History - UD	54,192	2.424	2,642
1.1.2205.50	History - GD	47,758	2.136	2,328
1.4.0000	Extension Instruction for Credit	94,959	4.247	4,629
2.1.0500	Bureau of Business Research	49,500	2.214	2,413
2.2.0401	Waterfowl Migration Study	47,800	2.138	2,330
2.2.0402	Mutation Recurrence Project	36,315	1.624	1,770
3.1.0000	Public Service, Community Education	12,949	.579	631
3.1.0502	Community Education, Accounting	1,364	.061	66
3.1.0509	Community Education, Marketing	980	.044	48
3.1.0802	Community Education, Elementary Education	1,553	.069	75
3.1.1902	Community Education, Physics	4,420	.198	216

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 13

ACTIVITY CENTER 6.3 - GENERAL ADMINISTRATIVE SERVICES

(Continued)

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
3.2.0000	Public Service, Community Service	$ 8,990	.402	$ 438
3.2.0502	Community Service, Accounting	1,818	.081	88
3.2.1501	Community Service, English	1,707	.076	83
3.2.2205	Community Service, History	1,523	.068	74
4.2.0000	Museums and Galleries	21,262	.951	1,036
5.1.7110	Student Services	55,750	2.493	2,717
5.1.7120	Sterling Lecture Series	15,415	.689	751
5.1.7140	Student Union	45,700	2.044	2,228
5.1.7200	Intercollegiate Athletics	271,220	12.128	13,217
5.5.7310	Food Services*	114,580	5.124	5,585
5.5.7320	Health Services	70,400	3.148	3,431
5.5.7330	Housing Services*	81,800	3.658	3,987
5.5.7340	Retail Services*	34,450	1.541	1,680
	TOTALS	$2,236,080	100.000	$108,988

*Inventories and cost of goods sold have been excluded from these accounts.

ALLOCATION STEP 14

ACTIVITY CENTER 6.4 - LOGISTICAL SERVICES

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
6.4.8170	Environmental Health and Safety	$30,400	$ 17,113	$ 3,795	$ 51,308
6.4.8251	Mail and Distribution	3,460	6,848	432	10,740
6.4.8252	Telephone and Telegraph	8,245	-	1,031	9,276
6.4.8253	Printing and Reproduction	18,600	-	2,322	20,922
6.4.8260	Transportation Services	21,300	20,530	2,661	44,491
	TOTALS	$82,005	$ 44,491	$10,241	$136,737

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0401.20	Biology - LD*	$ 33,012	1.476	$ 2,018
1.1.0402.20	Botany - LD	15,387	.688	941
1.1.0402.30	Botany - UD**	23,966	1.072	1,466
1.1.0402.50	Botany - GD***	20,795	.930	1,272
1.1.0407.20	Zoology - LD	28,442	1.272	1,739
1.1.0407.30	Zoology - UD	28,908	1.293	1,768
1.1.0407.50	Zoology - GD	18,091	.809	1,106
1.1.0502.20	Accounting - LD	7,608	.340	465
1.1.0502.30	Accounting - UD	18,811	.841	1,150
1.1.0502.50	Accounting - GD	17,119	.766	1,047
1.1.0509.20	Marketing - LD	5,735	.256	350
1.1.0509.30	Marketing - UD	20,812	.931	1,273
1.1.0509.50	Marketing - GD	22,730	1.017	1,391
1.1.0802.20	Elementary Education - LD	12,837	.574	785
1.1.0802.30	Elementary Education - UD	62,111	2.778	3,799
1.1.0802.50	Elementary Education - GD	71,947	3.218	4,400
1.1.0803.20	Secondary Education - LD	19,472	.871	1,191
1.1.0803.30	Secondary Education - UD	52,098	2.330	3,186
1.1.0803.50	Secondary Education - GD	106,380	4.757	6,505
1.1.0835.20	Physical Education - LD	41,031	1.835	2,509
1.1.0835.30	Physical Education - UD	11,805	.528	722
1.1.1501.20	English - LD	45,989	2.057	2,813
1.1.1501.30	English - UD	69,636	3.114	4,258
1.1.1501.50	English - GD	57,193	2.558	3,498
1.1.1701.20	Mathematics - LD	52,309	2.339	3,198
1.1.1701.30	Mathematics - UD	19,638	.878	1,201
1.1.1902.20	Physics - LD	17,983	.804	1,099
1.1.1902.30	Physics - UD	42,280	1.891	2,586
1.1.1905.20	Chemistry - LD	28,718	1.284	1,756
1.1.1905.30	Chemistry - UD	51,542	2.305	3,152
1.1.2204.20	Economics - LD	37,578	1.681	2,299
1.1.2204.30	Economics - UD	29,807	1.333	1,823
1.1.2204.50	Economics - GD	25,752	1.152	1,575
1.1.2205.20	History - LD	42,153	1.885	2,578
1.1.2205.30	History - UD	54,192	2.424	3,315
1.1.2205.50	History - GD	47,758	2.136	2,921
1.4.0000	Extension Instruction for Credit	94,959	4.247	5,807
2.1.0500	Bureau of Business Research	49,500	2.214	3,027
2.2.0401	Waterfowl Migration Study	47,800	2.138	2,923
2.2.0402	Mutation Recurrence Project	36,315	1.624	2,221
3.1.0000	Public Service, Community Education	12,949	.579	792

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 14

ACTIVITY CENTER 6.4 - LOGISTICAL SERVICES

(Continued)

Code	Recipient Activity Center Name	Total Direct Costs*	%	Allocated Costs
3.1.0502	Community Education, Accounting	$ 1,364	.061	$ 83
3.1.0509	Community Education, Marketing	980	.044	60
3.1.0802	Community Education, Elementary Education	1,553	.069	94
3.1.1902	Community Education, Physics	4,420	.198	271
3.2.0000	Public Service, Community Service	8,990	.402	550
3.2.0502	Community Service, Accounting	1,818	.081	111
3.2.1501	Community Service, English	1,707	.076	104
3.2.2205	Community Service, History	1,523	.068	93
4.2.0000	Museums and Galleries	21,262	.951	1,300
5.1.7110	Student Services	55,750	2.493	3,409
5.1.7120	Sterling Lecture Series	15,415	.689	942
5.1.7140	Student Union	45,700	2.044	2,795
5.1.7200	Intercollegiate Athletics	271,220	12.128	16,579
5.5.7310	Food Services*	114,580	5.124	7,007
5.5.7320	Health Services	70,400	3.148	4,305
5.5.7330	Housing Services*	81,800	3.658	5,002
5.5.7340	Retail Services*	34,450	1.541	2,107
	TOTALS	$2,236,080	100.000	$136,737

*Inventories and cost of goods sold have been excluded from these accounts.

ALLOCATION STEP 15

ACTIVITY CENTER 6.5 - PHYSICAL PLANT OPERATIONS

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
6.5.8310	Utilities	$ 69,800	$54,756	$ 8,720	$133,276
6.5.8320	Building Maintenance	78,110	-	9,756	87,866
6.5.8330	Grounds Maintenance	30,294	-	3,786	34,080
6.5.8340	Custodial Services	96,940	-	12,108	109,048
6.5.8390	General Insurance	14,688	-	1,836	16,524
	TOTALS	$289,832	$54,756	$36,206	$380,794

Code	Recipient Activity Center Name	Assignable Square Feet	%	Allocated Costs
1.1.0401.20	Biology - LD*	2,742	2.979	$ 11,344
1.1.0402.20	Botany - LD	1,080	1.173	4,467
1.1.0402.30	Botany - UD**	1,180	1.282	4,882
1.1.0402.50	Botany - GD***	505	.549	2,091
1.1.0407.20	Zoology - LD	1,077	1.170	4,455
1.1.0407.30	Zoology - UD	989	1.074	4,090
1.1.0407.50	Zoology - GD	556	.604	2,300
1.1.0502.20	Accounting - LD	346	.376	1,432
1.1.0502.30	Accounting - UD	551	.599	2,281
1.1.0502.50	Accounting - GD	328	.356	1,356
1.1.0509.20	Marketing - LD	244	.265	1,009
1.1.0509.30	Marketing - UD	577	.627	2,388
1.1.0509.50	Marketing - GD	422	.458	1,744
1.1.0802.20	Elementary Education - LD	685	.744	2,833
1.1.0802.30	Elementary Education - UD	2,103	2.285	8,701
1.1.0802.50	Elementary Education - GD	1,571	1.707	6,500
1.1.0803.20	Secondary Education - LD	894	.971	3,698
1.1.0803.30	Secondary Education - UD	1,616	1.756	6,687
1.1.0803.50	Secondary Education - GD	1,964	2.134	8,126
1.1.0835.20	Physical Education - LD	1,089	1.183	4,505
1.1.0835.30	Physical Education - UD	718	.780	2,970
1.1.1501.20	English - LD	2,288	2.486	9,467
1.1.1501.30	English - UD	2,179	2.367	9,013
1.1.1501.50	English - GD	858	.932	3,549
1.1.1701.20	Mathematics - LD	1,989	2.161	8,229
1.1.1701.30	Mathematics - UD	463	.503	1,915
1.1.1902.20	Physics - LD	705	.766	2,917
1.1.1902.30	Physics - UD	1,303	1.415	5,388
1.1.1905.20	Chemistry - LD	1,454	1.580	6,017
1.1.1905.30	Chemistry - UD	3,828	4.158	15,833
1.1.2204.20	Economics - LD	1,612	1.751	6,668
1.1.2204.30	Economics - UD	775	.842	3,206
1.1.2204.50	Economics - GD	451	.490	1,866
1.1.2205.20	History - LD	1,945	2.113	8,046
1.1.2205.30	History - UD	1,979	2.150	8,187
1.1.2205.50	History - GD	809	.879	3,347
1.4.0000	Extension Instruction for Credit	1,341	1.457	5,548
2.1.0500	Bureau of Business Research	1,200	1.304	4,966
2.2.0401	Waterfowl Migration Study	422	.458	1,744
2.2.0402	Mutation Recurrence Project	405	.440	1,676
3.1.0000	Public Service, Community Education	210	.228	868

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 15

ACTIVITY CENTER 6.5 - PHYSICAL PLANT OPERATIONS

(Continued)

Code	Recipient Activity Center Name	Assignable Square Feet	%	Allocated Costs
4.2.0000	Museums and Galleries	1,600	1.738	$ 6,618
5.1.7110	Student Services	700	.760	2,894
5.1.7120	Sterling Lecture Series	600	.652	2,483
5.1.7140	Student Union	500	.543	2,068
5.1.7200	Intercollegiate Athletics	3,000	3.257	12,399
5.5.7310	Food Services	700	.760	2,894
5.5.7320	Health Services	600	.652	2,483
5.5.7330	Housing Services	36,300	39.434	150,163
5.5.7340	Retail Services	600	.652	2,483
	TOTALS	92,053	100.000	$380,794

ALLOCATION STEP 16

ACTIVITY CENTER 6.7 - COMMUNITY RELATIONS

Code	Support Activity Center Name	Total Direct Costs	Capital Cost-Buildings	Capital Cost-Equipment	Total Costs To Be Allocated
6.7.8175	Alumni Relations	$29,900	$ 18,252	$3,624	$ 51,776
6.7.8180	Community Relations	26,800	4,570	3,349	34,719
6.7.8181	Community Relations - Memberships	16,218	-	2,028	18,246
	TOTALS	$72,918	$ 22,822	$9,001	$104,741

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
1.1.0401.20	Biology - LD*	$ 33,012	1.476	$ 1,546
1.1.0402.20	Botany - LD	15,387	.688	721
1.1.0402.30	Botany - UD**	23,966	1.072	1,123
1.1.0402.50	Botany - GD***	20,795	.930	974
1.1.0407.20	Zoology - LD	28,442	1.272	1,332
1.1.0407.30	Zoology - UD	28,908	1.293	1,354
1.1.0407.50	Zoology - GD	18,091	.809	847
1.1.0502.20	Accounting - LD	7,608	.340	356
1.1.0502.30	Accounting - UD	18,811	.841	881
1.1.0502.50	Accounting - GD	17,119	.766	802
1.1.0509.20	Marketing - LD	5,735	.256	268
1.1.0509.30	Marketing - UD	20,812	.931	975
1.1.0509.50	Marketing - GD	22,730	1.017	1,065
1.1.0802.20	Elementary Education - LD	12,837	.574	601
1.1.0802.30	Elementary Education - UD	62,111	2.778	2,910
1.1.0802.50	Elementary Education - GD	71,947	3.218	3,371
1.1.0803.20	Secondary Education - LD	19,472	.871	912
1.1.0803.30	Secondary Education - UD	52,098	2.330	2,440
1.1.0803.50	Secondary Education - GD	106,380	4.757	4,983
1.1.0835.20	Physical Education - LD	41,031	1.835	1,922
1.1.0835.30	Physical Education - UD	11,805	.528	553
1.1.1501.20	English - LD	45,989	2.057	2,155
1.1.1501.30	English - UD	69,636	3.114	3,262
1.1.1501.50	English - GD	57,193	2.558	2,679
1.1.1701.20	Mathematics - LD	52,309	2.339	2,450
1.1.1701.30	Mathematics - UD	19,638	.878	920
1.1.1902.20	Physics - LD	17,983	.804	842
1.1.1902.30	Physics - UD	42,280	1.891	1,981
1.1.1905.20	Chemistry - LD	28,718	1.284	1,345
1.1.1905.30	Chemistry - UD	51,542	2.305	2,414
1.1.2204.20	Economics - LD	37,578	1.681	1,761
1.1.2204.30	Economics - UD	29,807	1.333	1,396
1.1.2204.50	Economics - GD	25,752	1.152	1,207
1.1.2205.20	History - LD	42,153	1.885	1,974
1.1.2205.30	History - UD	54,192	2.424	2,539
1.1.2205.50	History - GD	47,758	2.136	2,237
1.4.0000	Extension Instruction for Credit	94,959	4.247	4,448
2.1.0500	Bureau of Business Research	49,500	2.214	2,319
2.2.0401	Waterfowl Migration Study	47,800	2.138	2,239
2.2.0402	Mutation Recurrence Project	36,315	1.624	1,701
3.1.0000	Public Service, Community Education	12,949	.579	606

*Lower Division
**Upper Division
***Graduate

ALLOCATION STEP 16

ACTIVITY CENTER 6.7 - COMMUNITY RELATIONS

(Continued)

Code	Recipient Activity Center Name	Total Direct Costs	%	Allocated Costs
3.1.0502	Community Education, Accounting	$ 1,364	.061	$ 64
3.1.0509	Community Education, Marketing	980	.044	46
3.1.0802	Community Education, Elementary Education	1,553	.069	72
3.1.1902	Community Education, Physics	4,420	.198	207
3.2.0000	Public Service, Community Service	8,990	.402	421
3.2.0502	Community Service, Accounting	1,818	.081	85
3.2.1501	Community Service, English	1,707	.076	80
3.2.2205	Community Service, History	1,523	.068	71
4.2.0000	Museums and Galleries	21,262	.951	996
5.1.7110	Student Services	55,750	2.493	2,611
5.1.7120	Sterling Lecture Series	15,415	.689	722
5.1.7140	Student Union	45,700	2.044	2,141
5.1.7200	Intercollegiate Athletics	271,220	12.128	12,705
5.5.7310	Food Services*	114,580	5.124	5,367
5.5.7320	Health Services	70,400	3.148	3,297
5.5.7330	Housing Services*	81,800	3.658	3,831
5.5.7340	Retail Services*	34,450	1.541	1,614
	TOTALS	$2,236,080	100.000	$104,741

*Inventories and cost of goods sold have been excluded from these accounts.

ALLOCATION STEP 17

ACTIVITY CENTER 9.0 - HOSPITALS

NOTE: This allocation step is not illustrated because no direct costs were assigned to this activity center.

2941736000045400(55%):
9341600000045300(45%):
4.5M:774:GD:Hirsch:2BA156

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